

LBT-D507/D507CD/D507CDM

SERVICE MANUAL

AEP Model
East European Model
LBT-D507

UK Model
LBT-D507CD/D507CDM

These systems are composed of following models.

As for the service manual, it is issued for each component model, then,
please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

	LBT-D507				LBT-D507CD	LBT-D507CDM
	AEP	G	IT	EE	UK	
AMPLIFIER	TA-D507					
CASSETTE DECK	TC-D507					
TUNER	ST-D707					
CD PLAYER	CDP-M43					
CD CHANGER	CDP-C422M					
TURNTABLE SYSTEM	PS-D707				PS-LX47P	
SPEAKER SYSTEM	SS-A507				SS-A507E	

G : Germany model
IT : Italian model
EE : East European model

PARTS LIST

- Items marked "*" are not stocked since they are seldom required for routine service.
Some delay should be anticipated when ordering these items.

<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
1-501-369-11	ANTENNA	(EXCEPT G)	3-754-664-51	MANUAL, INSTRUCTION (D, NL, S, I) (AEP, G, IT)	
1-501-374-11	ANTENNA LOOP		3-754-664-61	MANUAL, INSTRUCTION (English, D, SU, PL) (EE)	
1-559-533-11	CORD, CONNECTION (TA-CDP)	(D507CDM)	3-754-847-11	MANUAL, INSTRUCTION (English, F, E, P) (D507CDM)	
1-574-314-11	CORD (WITH CONNECTOR) (ST-CDP)				
1-590-822-11	CORD (WITH CONNECTOR) (ST-TA-TC)				
1-590-823-11	CORD (WITH CONNECTOR) (ST-TA-TC)		*4-951-714-01	INDIVIDUAL CARTON (FOR TA, ST, TC) (AEP, EE)	
1-693-032-11	COMMANDER (STANDARD TYPE) (RM-S571)		*4-951-715-01	INDIVIDUAL CARTON (FOR TA, TC) (AEP, G, IT)	
3-707-584-01	COVER, BATTERY (RM-S571)		*4-951-717-01	INDIVIDUAL CARTON (UK)	
3-754-664-11	MANUAL, INSTRUCTION (English) (UK)				
3-754-664-41	MANUAL, INSTRUCTION (English, F, E, P) (AEP)				

F : French
E : Spanish
P : Portuguese
D : German
NL : Dutch (Holland)
S : Swedish
I : Italian
SU : Russian
PL : Poland

STEREO COMPONENT SYSTEM
SONY®



9-957-048-11

Sony Corporation
Audio Group

English
92B1863-1
Printed in Japan
© 1992.2

Published by Customer Relations and Service Group

TA-D507

SERVICE MANUAL

*AEP Model
UK Model
East European Model*



This set is the amplifier section in LBT-D507/D507CD/D507CDM.

SPECIFICATIONS

Continuous RMS power output

60 W + 60 W
(6 ohms, at 1 kHz, 5 % THD)
50 W + 50 W
(6 ohms, DIN, 1 kHz)
90 W + 90 W
(6 ohms, at 1 kHz, 10 % THD)

Music power output

Input	Jack type	Sensitivity	Impedance
PHONO (MM)	Phono	3.3 mV	47 kohms
VIDEO	Phono	270 mV	47 kohms

Audio output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

Frequency response

10 Hz to 50 kHz ± 0.3 dB

Power requirements

220 - 230 V AC, 50/60 Hz

Power consumption

150 W

Weight

Approx. 6.0 kg

Dimensions

Approx. 355 × 132 × 320 mm
(w/h/d, including projections)

Design and specifications are subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.



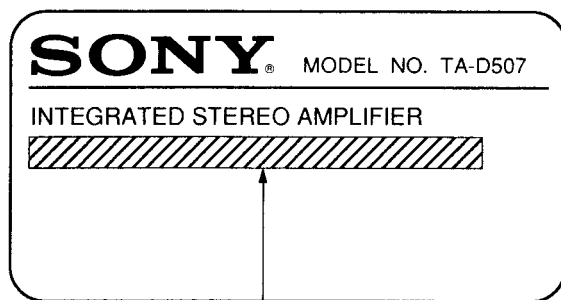
INTEGRATED STEREO AMPLIFIER
SONY®

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MODEL IDENTIFICATION

— Model Number Portion —



AEP, Italian, East European model : AC : 220—230V ~ 50/60Hz
 Germany model : SYSTEM LBT-D507
 AC : 220—230V ~ 50/60Hz
 UK model : AC : 240V ~ 50/60Hz

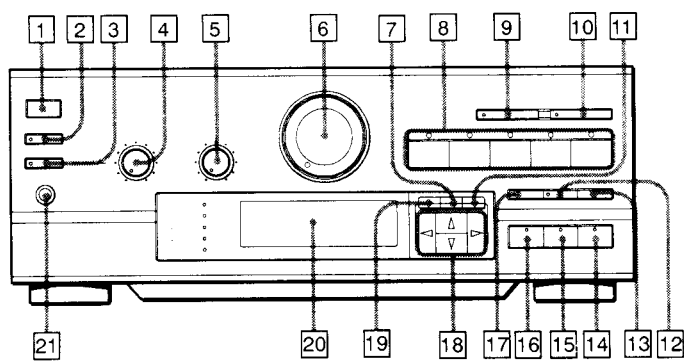
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

This section is extracted
from instruction manual.

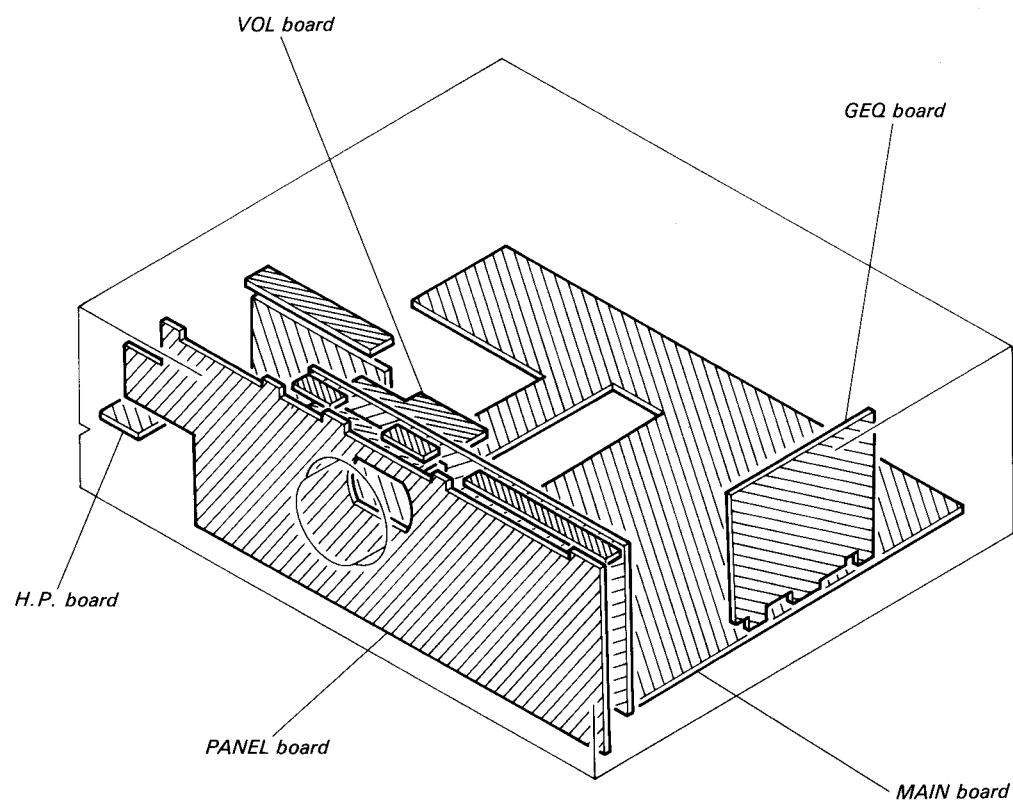
Location of Controls



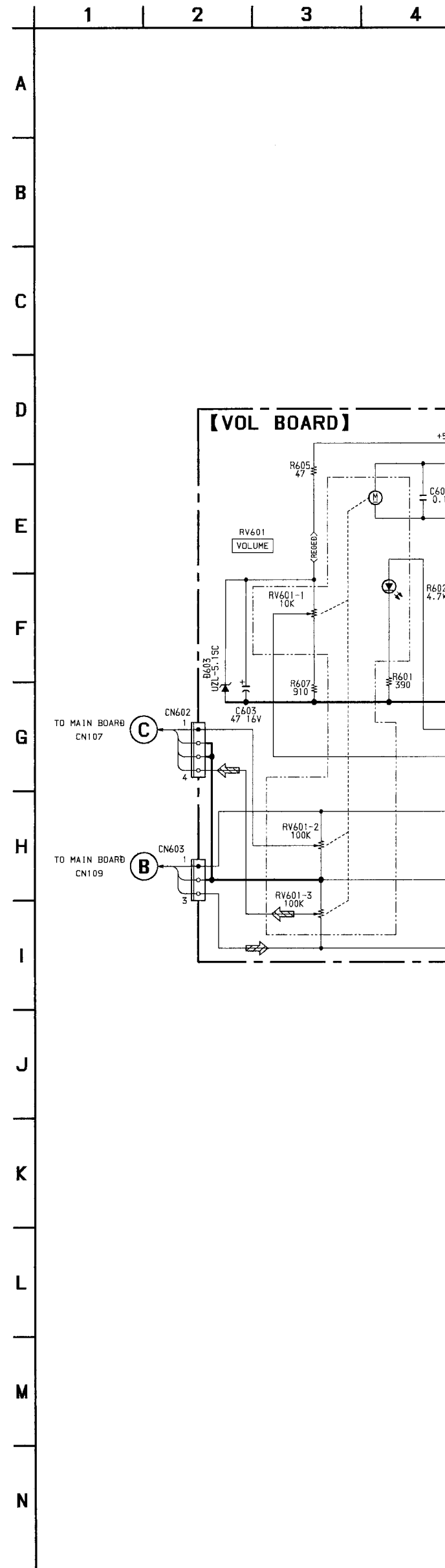
- 1 POWER switch (16)
- 2 EFFECT button and indicator (60)
- 3 DBFB button and indicator (18)
- 4 DBFB LEVEL control and indicator (18)
- 5 BALANCE control (18)
- 6 VOLUME control (18)
- 7 FLAT button (62)
- 8 Function selectors and indicators
- 9 EQ REC button and indicator (40)
- 10 PROGRAM FUNCTION button and indicator (122)
- 11 REVERSE button (62)
- 12 SURROUND MODE button and indicator (54)
- 13 SURROUND LEVEL button (54)
- 14 EQ button and indicator (58)
- 15 PERSONAL FILE 1 - 5 button and indicator (64)
- 16 SELECT 5 button and indicator (56)
- 17 MEMORY button and indicator (64)
- 18 CURSOR CONTROL buttons (56, 58, 64, 66)
- 19 DISPLAY button (62)
- 20 Display window
- 21 HEADPHONES jack

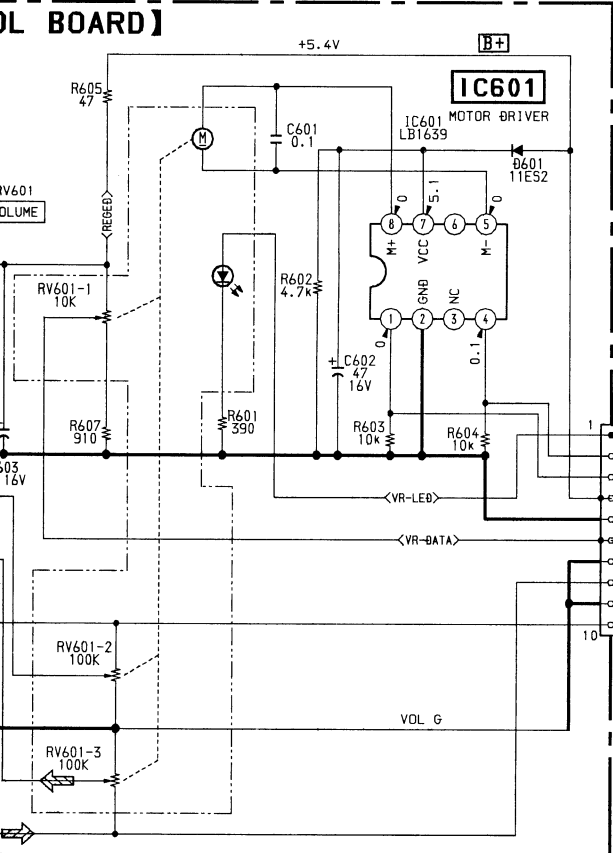
SECTION 2 DIAGRAMS

2-1. CIRCUIT BOARDS LOCATION



2-2. SCHEMATIC DIAGRAMS - PANEL Section -

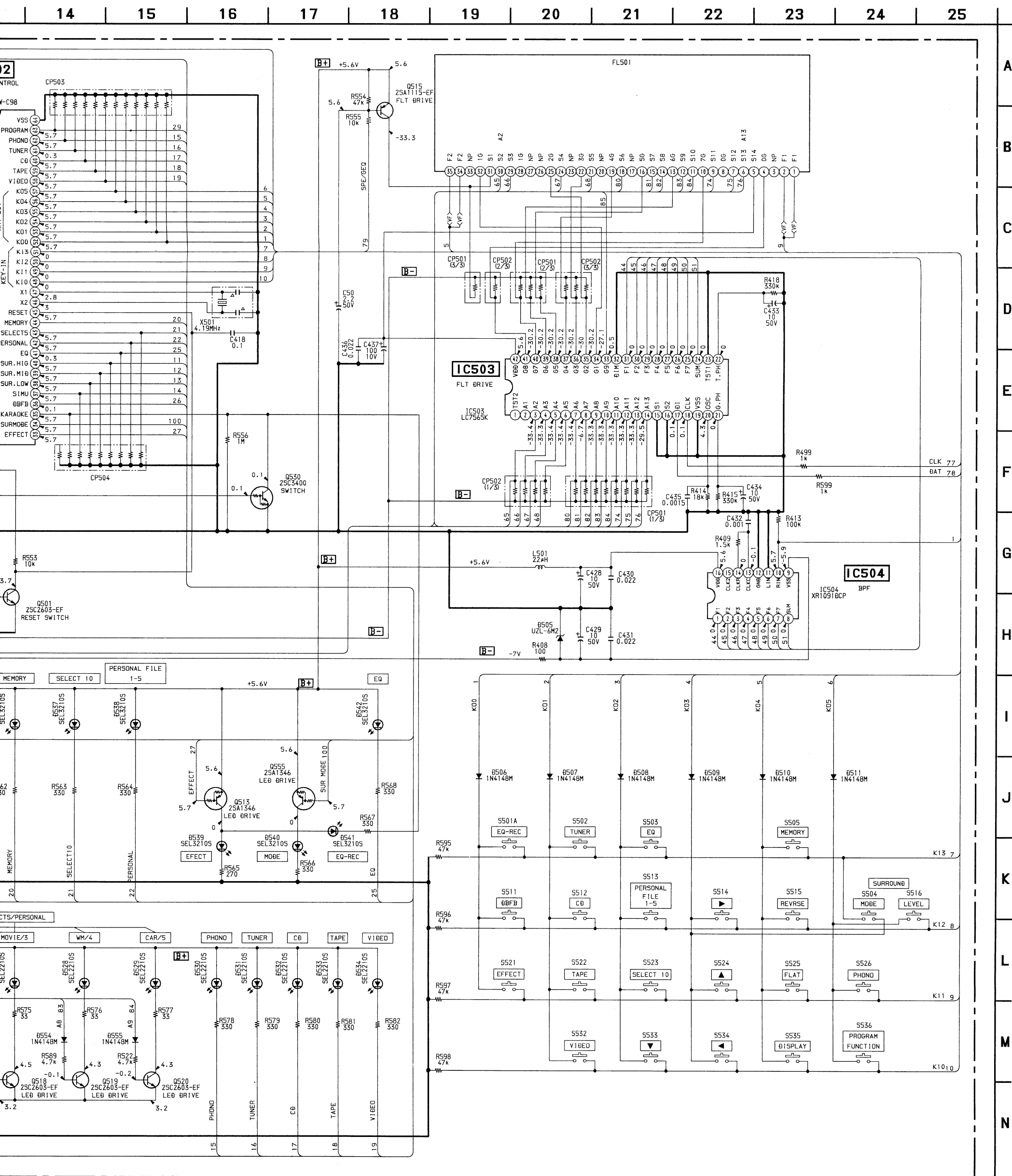











Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- \triangle : internal component.
- \square : nonflammable resistor.
- \square : fusible resistor.
- \square : printed resistor.
- \square : B+ Line
- \square : B- Line
- \square : adjustment for repair.
- * : selected to yield optimum performance.
- AC voltage readings in the bias oscillator with a VTVM.
- Total current is measured with no cassette installed.

- Power voltage is dc V and fed with regulated dc power supply from external power voltage jack.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \square : CD
- G: Germany
- IT: Italian
- EE: East European



- All capacitors are in μF unless otherwise noted. $\text{pF} : \mu\text{F} = 100$
- 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- \triangle : internal component.
-  : nonflammable resistor.
-  : fusible resistor.
-  : printed resistor.
-  : B+ Line
-  : B- Line
-  : adjustment for repair.
- * : selected to yield optimum performance.
- AC voltage readings in the bias oscillator with a VTVM.
- Total current is measured with no cassette installed.

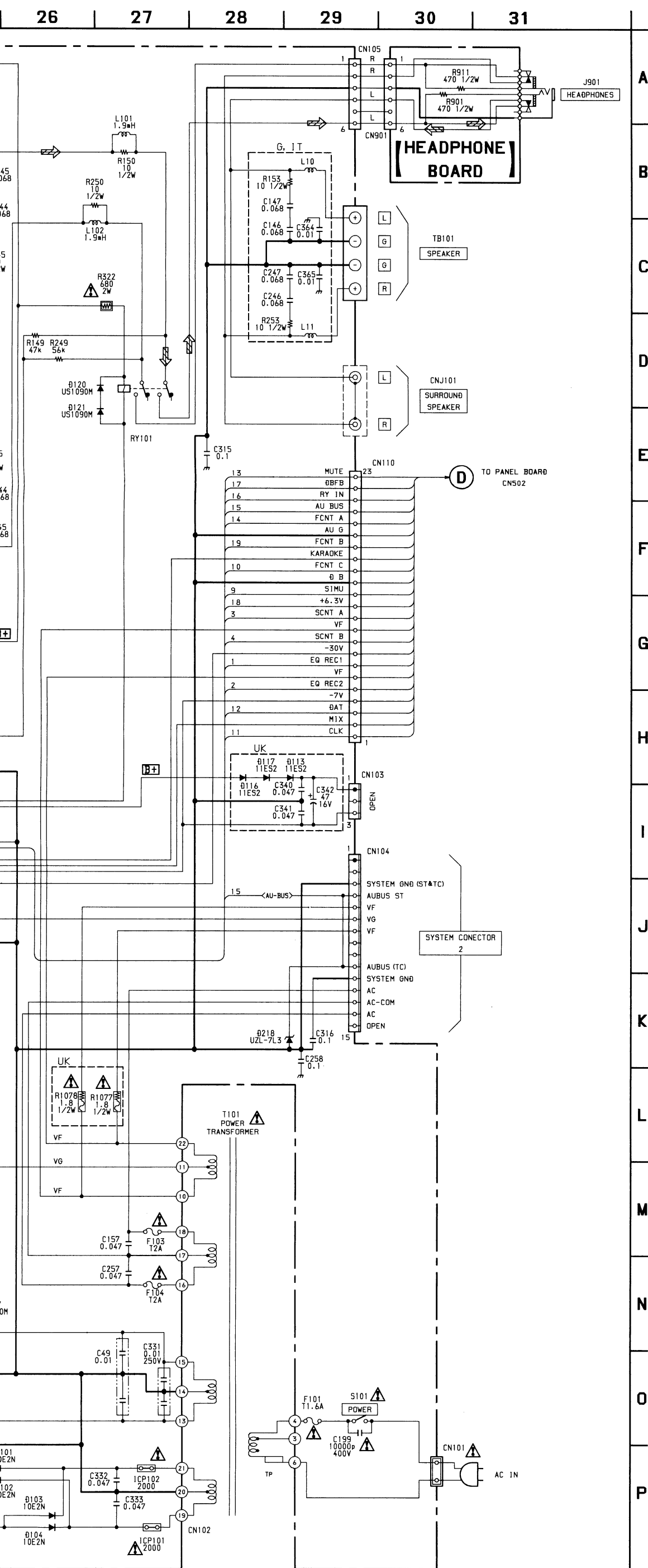
- Power voltage is dc V and fed with regulated dc power supply from external power voltage jack.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 : CD
 G: Germany
 IT: Italian
 EE: East European

EE: East European

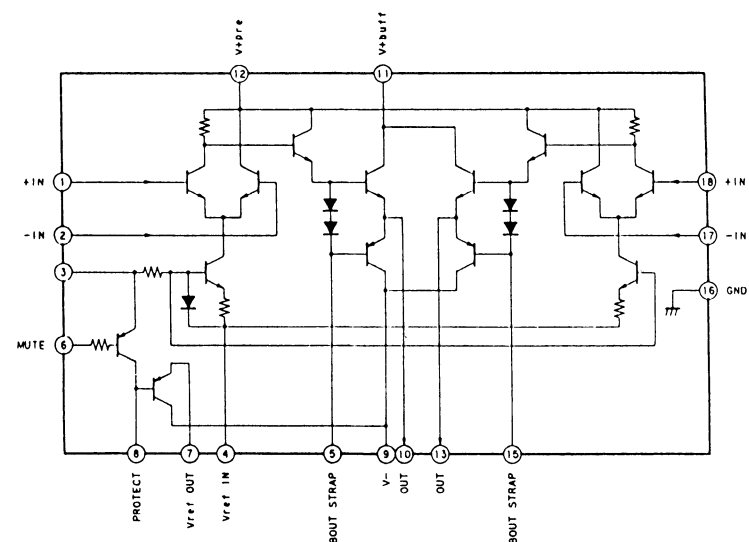
[illegible]

	1	2	3	4	5	6	7	8	9	10	11	12	13
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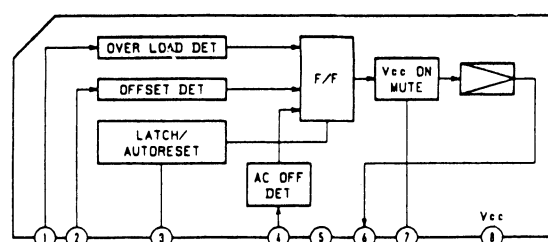




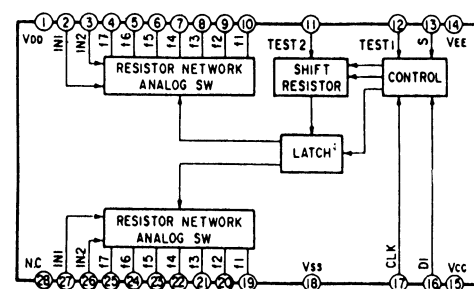
IC103 STK4152MK2K



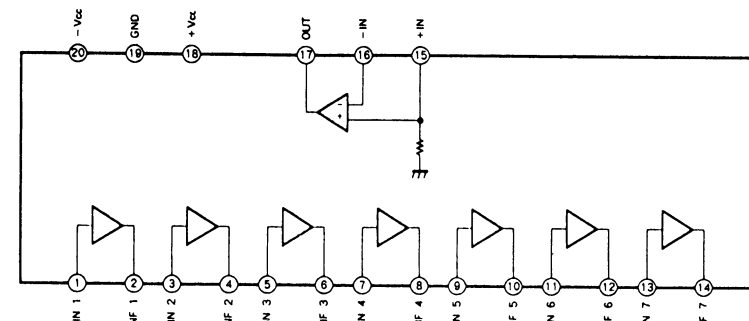
IC121 μPC1237HA



IC112 LC7522K



IC113 M5289P



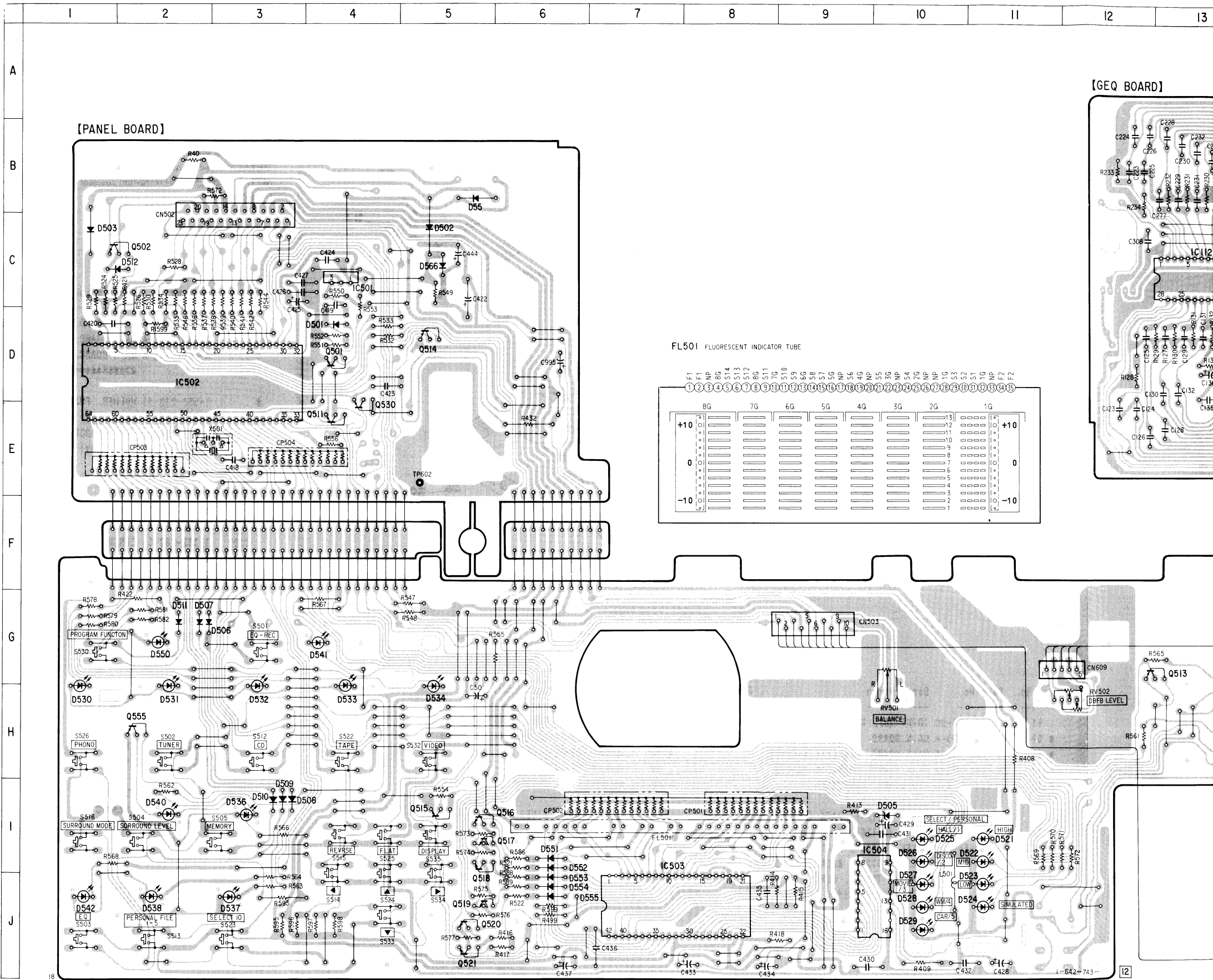
Note:

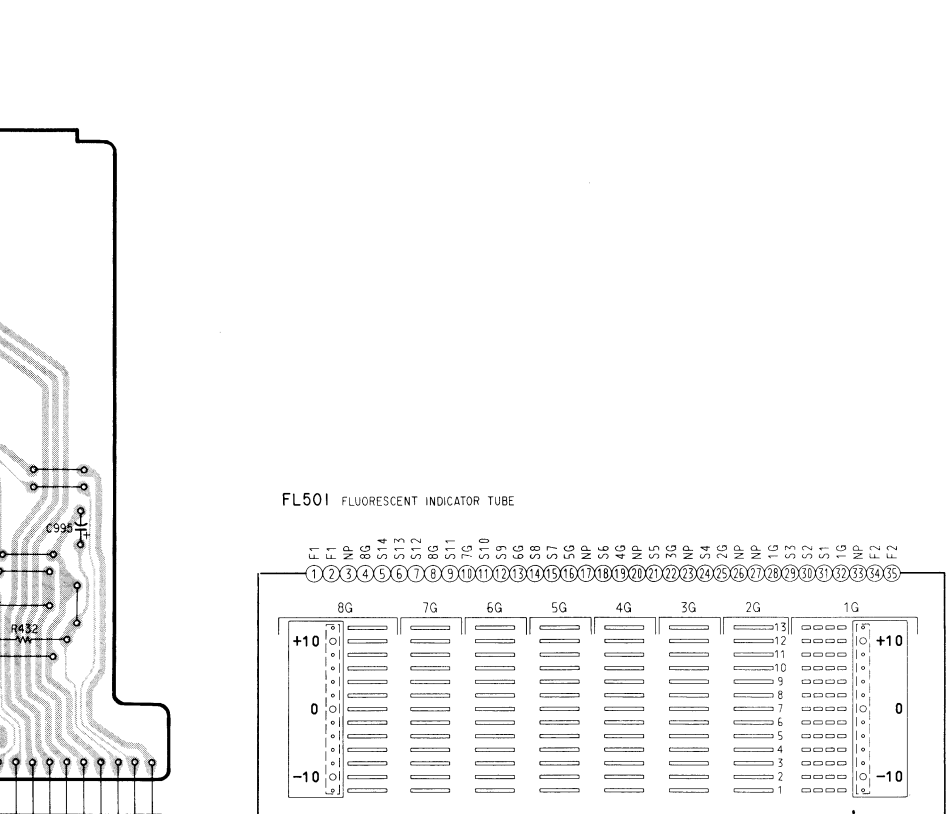
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- \triangle : internal component.
- \square : nonflammable resistor.
- \square : fusible resistor.
- \square : printed resistor.
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- * : selected to yield optimum performance.
- AC voltage readings in the bias oscillator with a VTVM.
- Total current is measured with no cassette installed.
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- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \square : CD
- G: Germany
- IT: Italian
- EE: East European

● Semiconductor Location

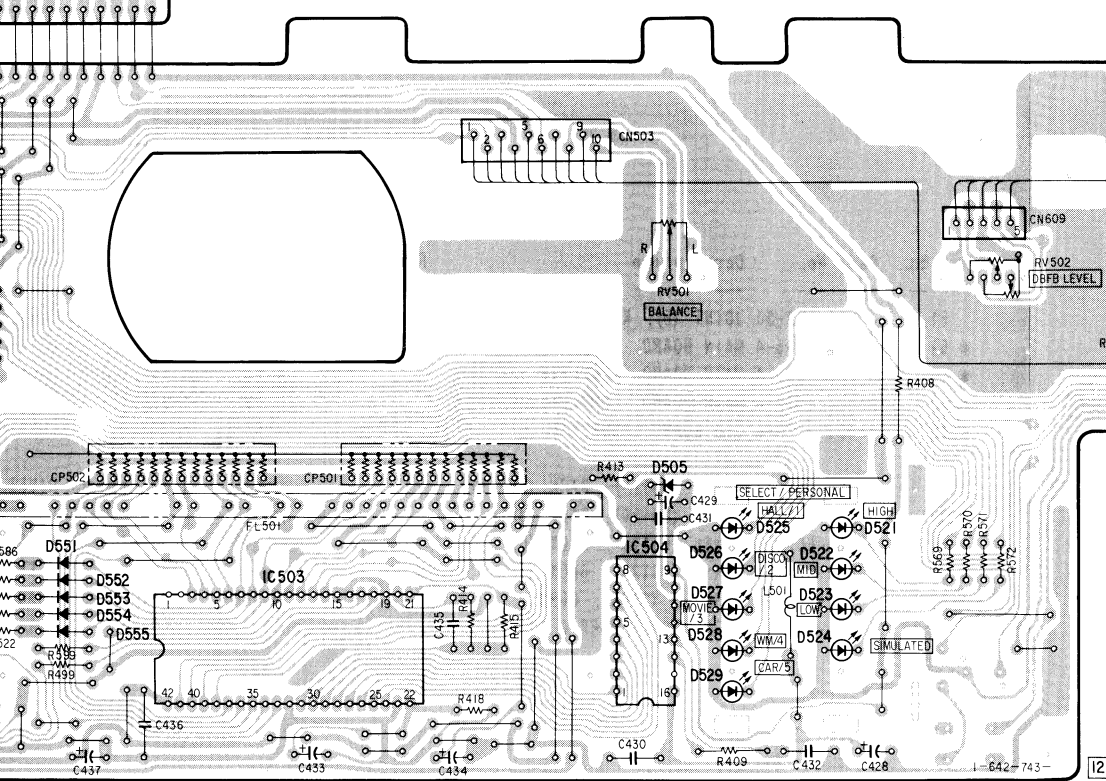
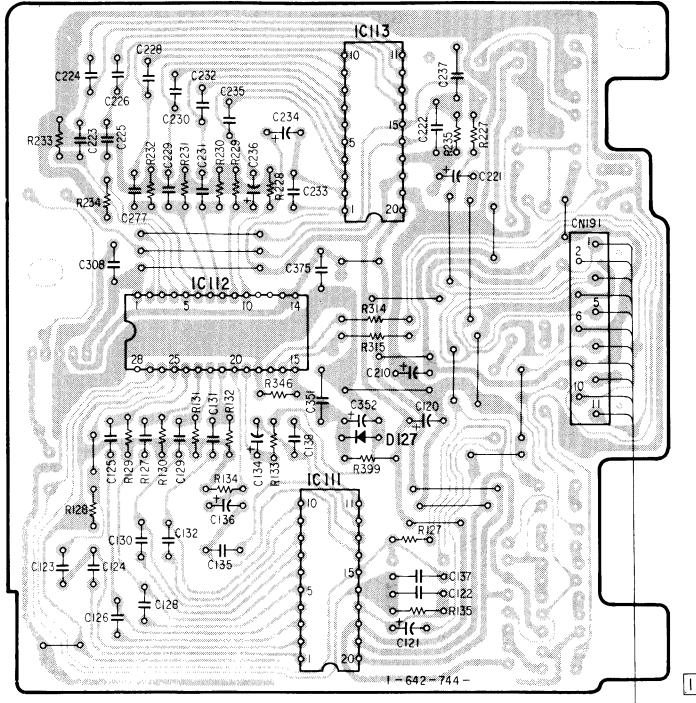
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D55	B-5	D537	J-3	Q853	H-19
D101	G-27	D538	J-2	Q854	I-19
D102	G-27	D539	G-14	Q855	H-19
D103	G-27	D540	I-2	Q856	H-18
D104	H-27	D541	G-2	Q857	H-19
D105	J-18	D542	J-2	Q858	H-18
D106	J-21	D550	G-2	Q859	I-19
D107	J-28	D551	I-6	Q860	I-19
D108	J-28	D552	I-6		
D109	J-28	D553	I-6		
D113	B-23	D554	J-6		
D114	G-30	D555	J-6		
D115	H-30	D566	C-5		
D116	B-24	D601	J-14		
D117	B-23	D603	J-15		
D118	J-18	D862	H-19		
D119	H-29	D863	H-19		
D120	D-22				
D121	D-22	IC101	J-18		
D122	C-22	IC102	J-21		
D123	E-23	IC103	F-23		
D124	E-23	IC104	B-20		
D125	H-21	IC105	C-19		
D126	H-21	IC106	E-20		
D127	D-14	IC107	F-18		
D128	C-22	IC108	F-20		
D218	B-26	IC109	E-18		
D221	H-21	IC110	C-21		
D222	H-21	IC111	E-14		
D501	D-4	IC112	C-13		
D502	C-5	IC113	B-14		
D503	C-1	IC121	C-22		
D505	I-10	IC122	C-18		
D506	G-2	IC501	C-4		
D507	G-2	IC502	D-2		
D508	I-3	IC503	J-7		
D509	I-3	IC504	J-10		
D510	I-3	IC601	I-15		
D511	G-2	IC855	H-20		
D512	C-1				
D521	I-11	Q101	G-29		
D522	I-11	Q102	B-23		
D523	J-11	Q103	E-23		
D524	J-11	Q104	E-23		
D525	I-10	Q511	E-4		
D526	I-10	Q513	G-13		
D527	J-10	Q514	D-5		
D528	J-10	Q515	I-5		
D529	J-10	Q516	I-5		
D530	G-1	Q517	I-5		
D531	G-2	Q518	I-5		
D532	G-3	Q519	J-5		
D533	G-4	Q520	J-5		
D534	G-5	Q521	J-5		
D535	H-14	Q530	D-4		
D536	I-3	Q555	H-2		

2-4. PRINTED WIRING BOARDS

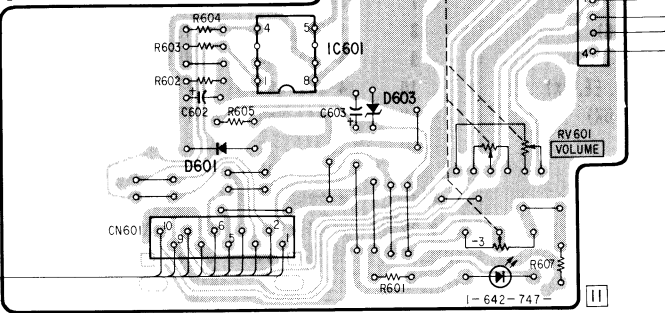




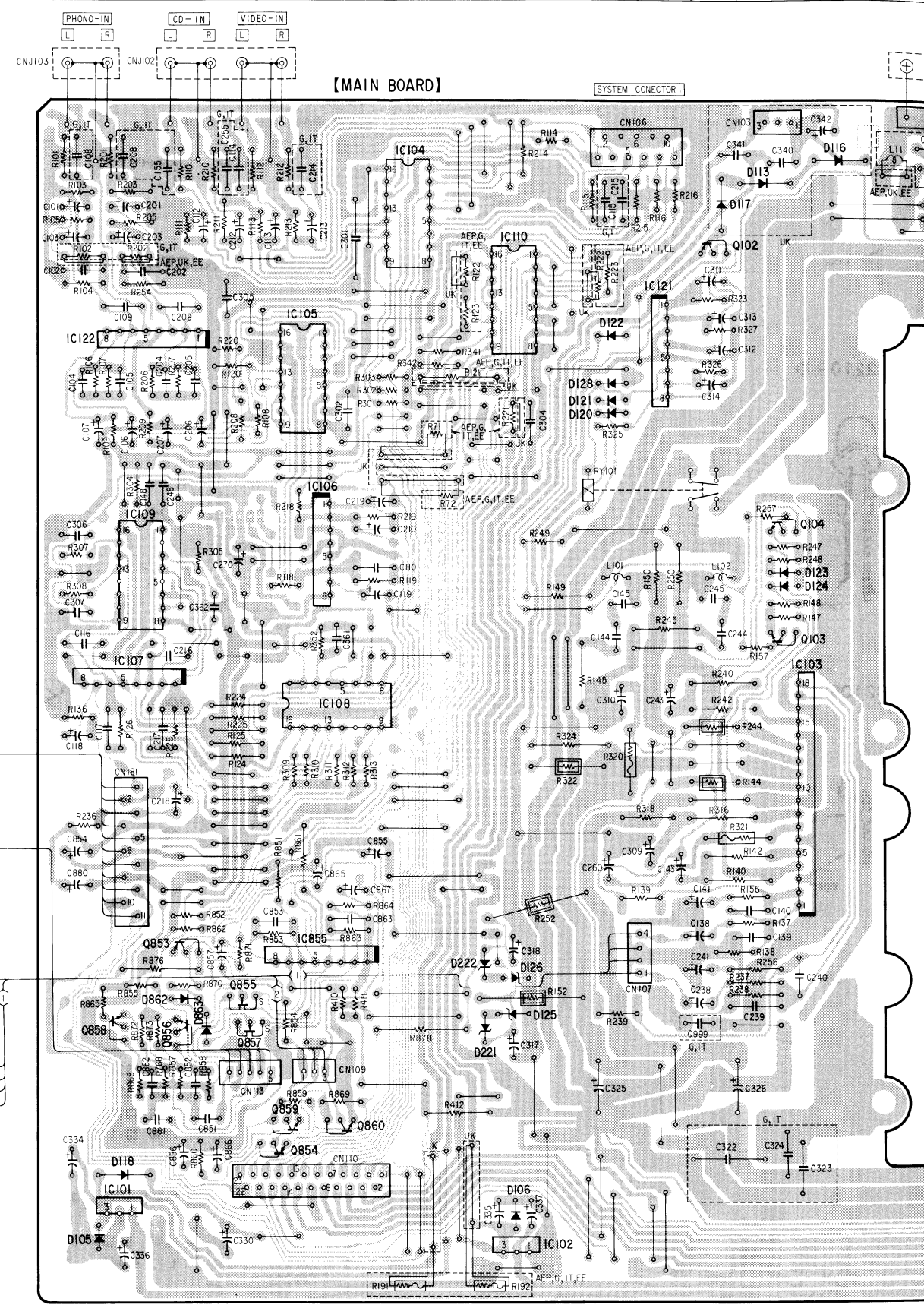
[GEQ BOARD]



[VOL BOARD]



[MAIN BOARD]



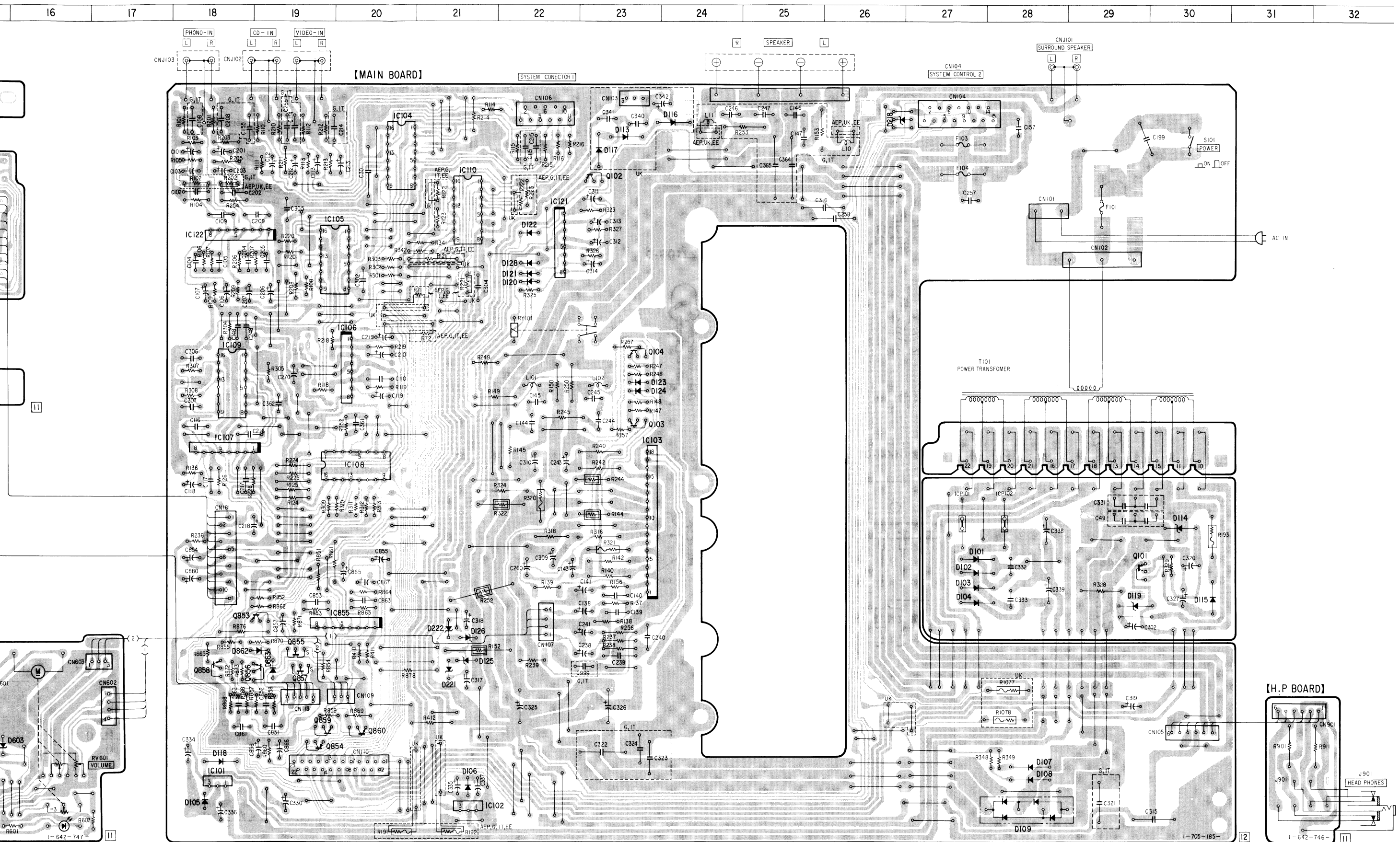
Note:

- ○ — : parts extracted from the component side.

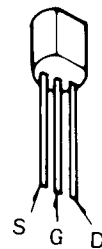
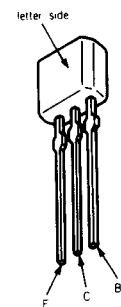
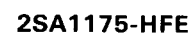
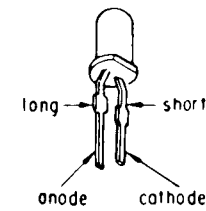
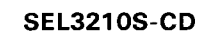
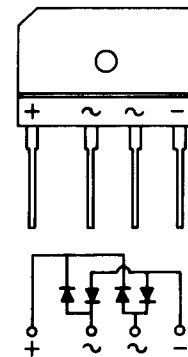
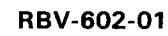
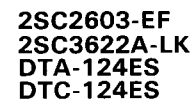
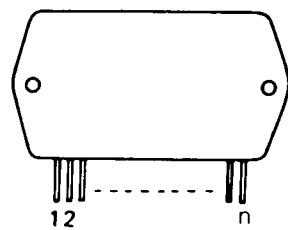
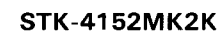
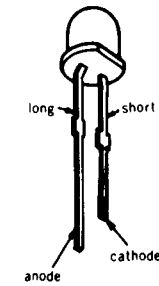
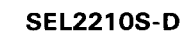
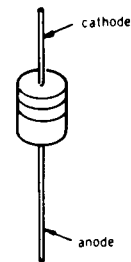
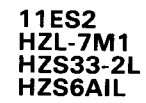
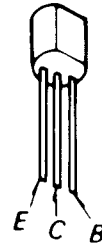
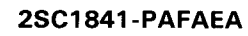
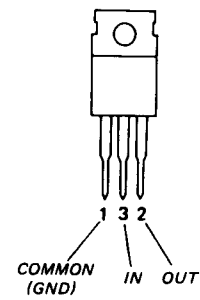
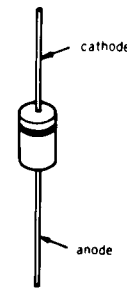
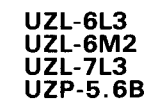
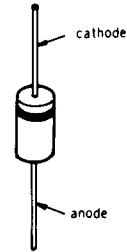
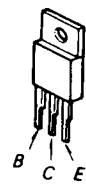
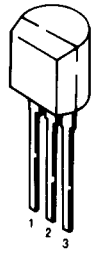
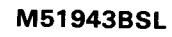
G: Germany

IT:Italian

EE : East European



2-5. SEMICONDUCTOR LEAD LAYOUT



NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.

- Color Indication of Appearance Parts
Example:

Example:

NOB, BALANCE(WHITE)...(RED)

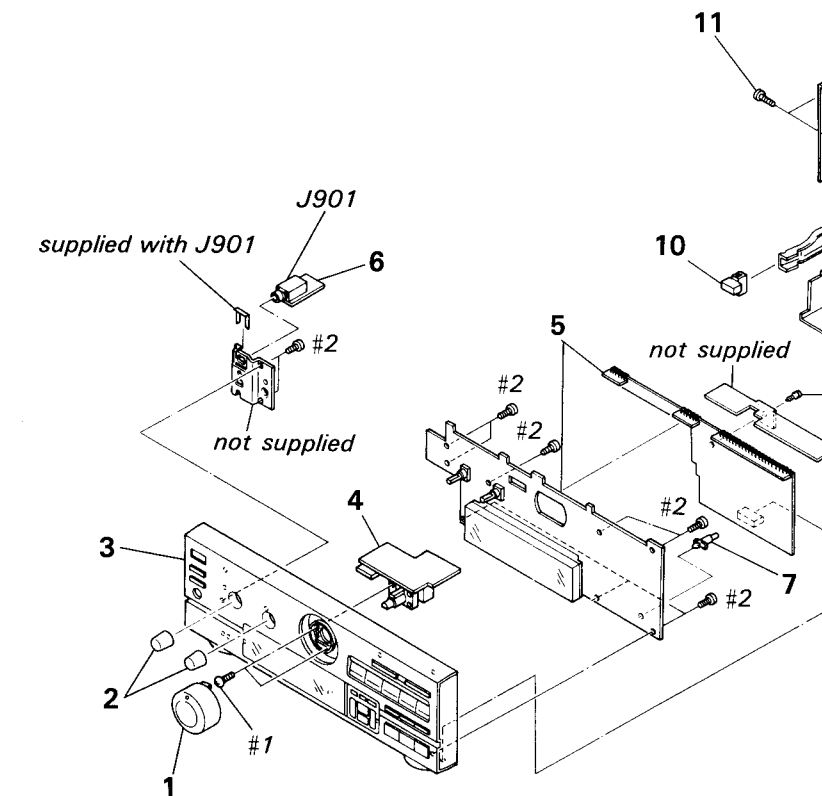
Parts color	Cabinet's color
-------------	-----------------

- Items marked " * " are not required since they are seldom required for routine service. Some delay is anticipated when ordering them.
- The mechanical parts with no number in the exploded view are supplied.
- hardware (#mark) list is given at the last of this parts list.

- The mechanical parts with number in the exploded view supplied.

- hardware (#mark) list is given last of this parts list.

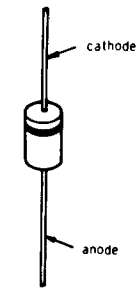
3-1. CABINET SECTION



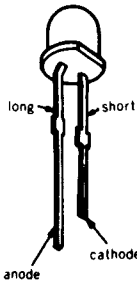
Ref. No.	Part No.	Description	Remark	Ref. No.
1	X-4942-417-1	KNOB ASSY, ROUND (IT)		* 7
1	X-4942-418-1	KNOB ASSY, ROUND (AEP, G. EE, UK)		8
2	4-950-651-01	KNOB (DIA. 16), ROUND (IT)		9
2	4-950-651-11	KNOB (DIA. 16), ROUND (AEP, G. EE, UK)		10
3	X-4942-431-1	PANEL ASSY, FRONT (AEP, G. EE, UK)		10
3	X-4942-433-1	PANEL ASSY, FRONT (IT)		11
* 4	1-642-747-11	VOL BOARD		* 12
* 5	A-4347-275-A	PANEL BOARD, COMPLETE		* 12
* 6	1-642-746-11	H. P. BOARD		J901

SECTION 3
EXPLODED VIEWS

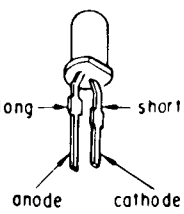
UZL-6L3
UZL-6M2
UZL-7L3
UZP-5.6B



SEL2210S-D



SEL3210S-CD



NOTE:

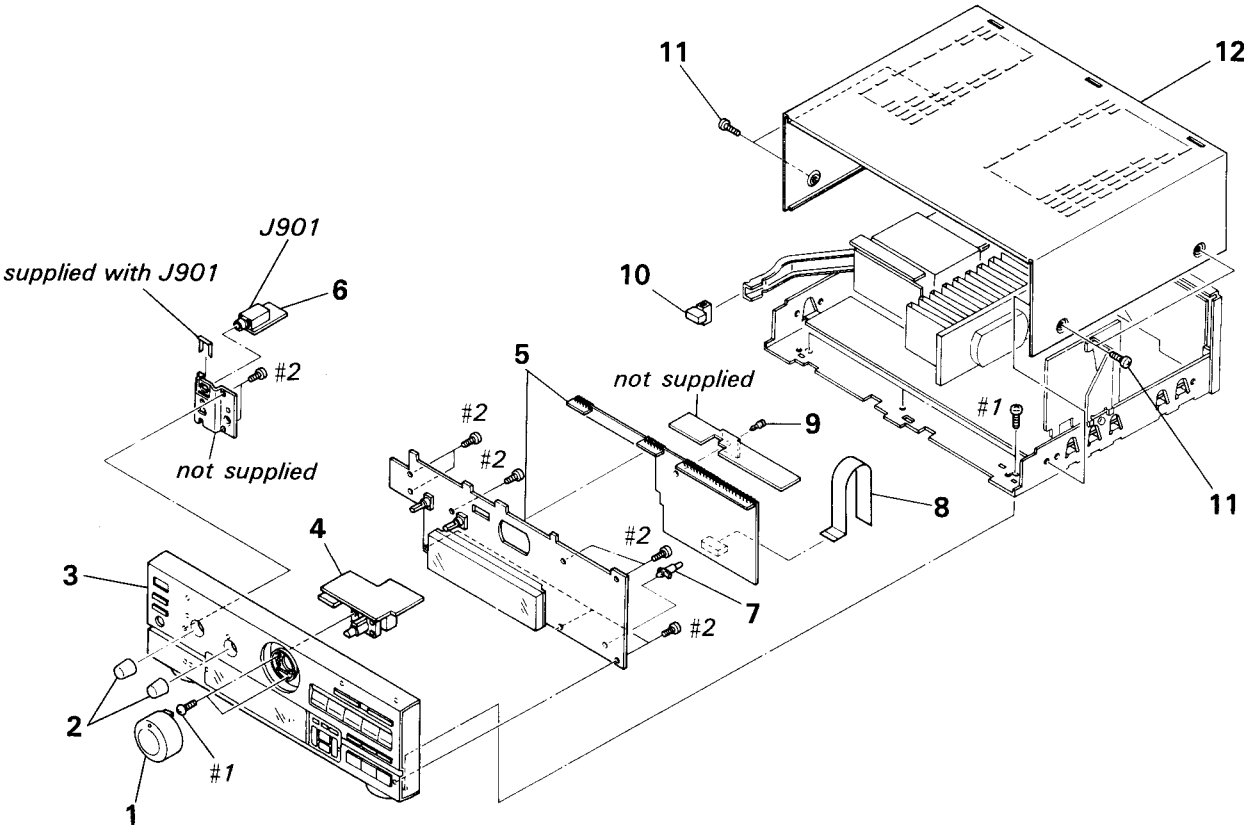
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE(WHITE)...(RED)
Parts color Cabinet's color

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

G: Germany
IT: Italian
EE: East European

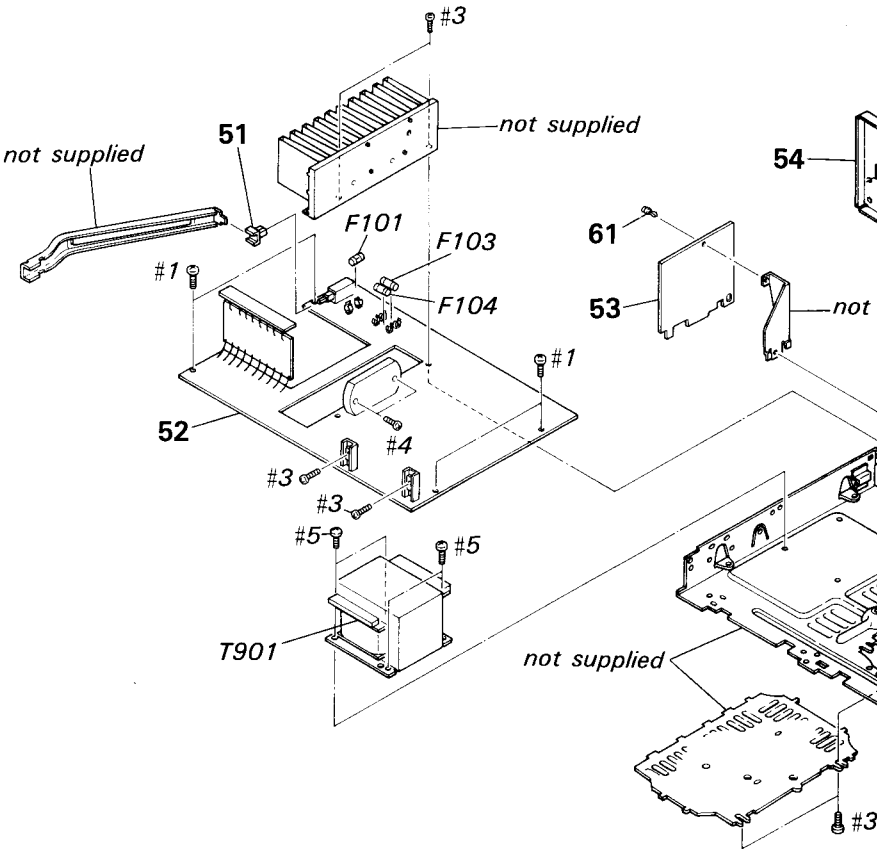
3-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	X-4942-417-1	KNOB ASSY, ROUND (IT)	
1	X-4942-418-1	KNOB ASSY, ROUND (AEP, G, EE, UK)	
2	4-950-651-01	KNOB (DIA. 16), ROUND (IT)	
2	4-950-651-11	KNOB (DIA. 16), ROUND (AEP, G, EE, UK)	
3	X-4942-431-1	PANEL ASSY, FRONT (AEP, G, EE, UK)	
3	X-4942-433-1	PANEL ASSY, FRONT (IT)	
* 4	1-642-747-11	VOL BOARD	
* 5	A-4347-275-A	PANEL BOARD, COMPLETE	
* 6	1-642-746-11	H. P. BOARD	

Ref. No.	Part No.	Description	Remark
* 7	4-924-098-31	HOLDER, PC BOARD	
8	1-690-697-11	WIRE (FLAT TYPE) (23 CORE)	
9	4-812-134-11	RIVET NYLON, 3. 5	
10	4-942-061-01	BUTTON (P) (IT)	
10	4-942-061-11	BUTTON (P) (AEP, G, EE, UK)	
11	3-363-099-01	SCREW (CASE +3X8 TP2)	
* 12	4-939-803-91	CASE (IT)	
* 12	4-949-912-11	CASE (AEP, G, EE, UK)	
J901	1-507-854-00	JACK, PHONE	

3-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
51	4-866-342-00	JOINT (B), KNOB	
* 52	A-4347-265-A	MAIN BOARD, COMPLETE (UK)	
* 52	A-4347-266-A	MAIN BOARD, COMPLETE (AEP, EE)	
* 52	A-4347-272-A	MAIN BOARD, COMPLETE (G, IT)	
* 53	A-4347-276-A	GEQ BOARD, COMPLETE	
* 54	4-950-662-11	PANEL (B3120), BACK (AEP, EE)	
* 54	4-950-662-21	PANEL (B3120), BACK (UK)	
* 54	4-950-662-41	PANEL (B3120), BACK (G)	
* 54	4-950-662-51	PANEL (B3120), BACK (IT)	
* 55	3-703-244-00	BUSHING (2104), CORD	
56	1-575-654-11	CORD, POWER (AEP, G, IT, EE)	

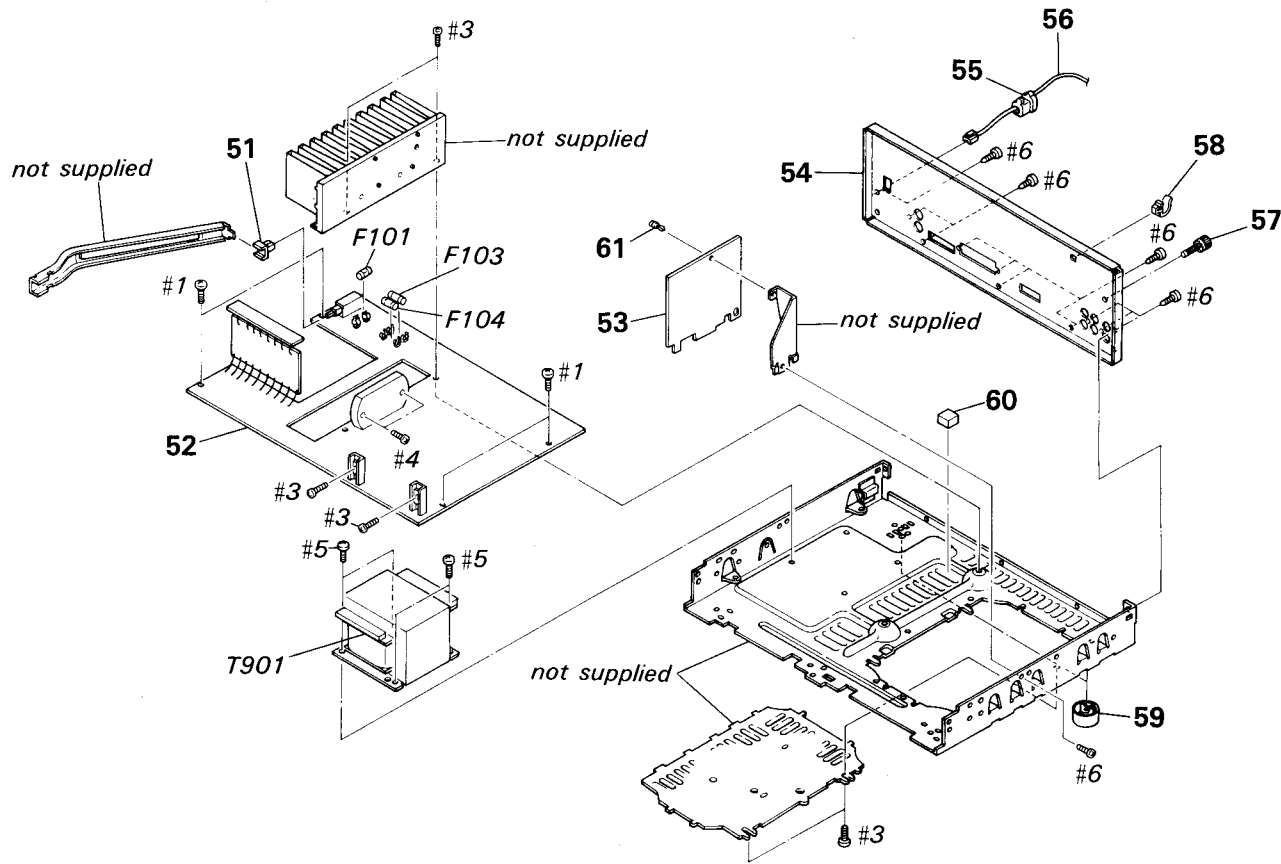
Ref. No.	Part No.	Description	Remark
56	1-575-669-11	CORD, POWER (AEP, G, EE, UK)	
57	4-947-010-11	CORD, POWER (IT)	
* 58	4-949-235-11	CORD, POWER (AEP, G, EE, UK)	
59	4-931-169-11	CORD, POWER (G, IT)	
* 60	4-932-867-11	CORD, POWER (AEP, G, EE, UK)	
61	4-812-134-11	RIVET NYLON, 3. 5	
F101	1-532-259-11	SCREW (CASE +3X8 TP2)	
F103	1-532-203-11	SCREW (CASE +3X8 TP2)	
F104	1-532-203-11	SCREW (CASE +3X8 TP2)	
T901	1-450-812-11	SCREW (CASE +3X8 TP2)	

SECTION 4
ELECTRICAL PARTS LIST

MAIN

3-2. MAIN BOARD SECTION

Parts identified by
dotted line with mark
are critical for safety.
Replace only with part number
specified.



Ref. No.	Part No.	Description	Remark
51	4-866-342-00	JOINT (B), KNOB	
* 52	A-4347-265-A	MAIN BOARD, COMPLETE (UK)	
* 52	A-4347-266-A	MAIN BOARD, COMPLETE (AEP, EE)	
* 52	A-4347-272-A	MAIN BOARD, COMPLETE (G, IT)	
* 53	A-4347-276-A	GEQ BOARD, COMPLETE	
* 54	4-950-662-11	PANEL (B3120), BACK (AEP, EE)	
* 54	4-950-662-21	PANEL (B3120), BACK (UK)	
* 54	4-950-662-41	PANEL (B3120), BACK (G)	
* 54	4-950-662-51	PANEL (B3120), BACK (IT)	
* 55	3-703-244-00	BUSHING (2104), CORD	
△ 56	1-575-654-11	CORD, POWER (AEP, G, IT, EE)	

Ref. No.	Part No.	Description	Remark
△ 56	1-575-669-21	CORD, POWER (UK)	
57	4-947-010-01	SCREW, FEEDER FIXED	
* 58	4-949-235-01	HOOK	
59	4-931-169-01	FOOT	
* 60	4-932-867-01	CUSHION	
61	4-812-134-11	RIVET NYLON, 3.5	
△ F101	1-532-259-00	FUSE (T1.6A)	
△ F103	1-532-203-00	FUSE (T2.0A)	
△ F104	1-532-203-00	FUSE (T2.0A)	
△ T901	1-450-812-11	TRANSFORMER, POWER	

The components identified by
mark △ or dotted line with mark
△ are critical for safety.
Replace only with part number
specified.

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H

When indication parts by reference
number, please include the board name.

The components identified by
mark △ or dotted line with mark
△ are critical for safety.
Replace only with part number
specified.

G: Germany

IT: Italian

EE: East European

Ref. No.	Part No.	Description	Remark
*	A-4347-266-A	MAIN BOARD, COMPLETE (AEP, EE)	
*	A-4347-272-A	MAIN BOARD, COMPLETE (G, IT)	
*	A-4347-265-A	MAIN BOARD, COMPLETE (UK)	

*	1-533-213-31	HOLDER, FUSE	
*	3-309-144-21	HEAT SINK	
*	4-942-204-01	PLATE, GROUND	
	7-682-548-04	SCREW +BVTT 3X8 (S)	
< CAPACITOR >			
C49	1-102-394-11	CERAMIC 0.01uF	250V
C101	1-126-161-11	ELECT 2.2uF	20% 50V
C102	1-162-282-31	CERAMIC 100PF	10% 50V
C103	1-126-022-11	ELECT 47uF	20% 16V
C104	1-106-347-00	MYLAR 1500PF	5% 200V
C105	1-130-480-00	MYLAR 0.0056uF	5% 50V
C106	1-124-464-11	ELECT 0.22uF	20% 50V
C107	1-126-022-11	ELECT 47uF	20% 16V
C108	1-162-286-31	CERAMIC 220PF	10% 50V (G, IT)
C109	1-162-219-31	CERAMIC 68PF	5% 50V
C110	1-162-207-31	CERAMIC 22PF	5% 50V
C112	1-126-163-11	ELECT 4.7uF	20% 50V
C113	1-126-163-11	ELECT 4.7uF	20% 50V
C114	1-162-286-31	CERAMIC 220PF	10% 50V (G, IT)
C115	1-162-286-31	CERAMIC 220PF	10% 50V (G, IT)
C116	1-162-219-31	CERAMIC 68PF	5% 50V
C117	1-162-294-31	CERAMIC 0.001uF	10% 50V
C118	1-126-059-11	ELECT 10uF	20% 50V
C119	1-126-022-11	ELECT 47uF	20% 16V
C138	1-126-059-11	ELECT 10uF	20% 50V
C139	1-162-282-31	CERAMIC 100PF	10% 50V
C140	1-162-286-31	CERAMIC 220PF	10% 50V
C141	1-126-101-11	ELECT 100uF	20% 16V
C143	1-124-910-11	ELECT 47uF	20% 50V

Ref. No.	Part No.	Description	Remark
C144	1-136-163-00	FILM 0.068uF	5% 50V
C145	1-136-163-00	FILM 0.068uF	5% 50V
C146	1-136-163-00	FILM 0.068uF	5% 50V (G, IT)
C147	1-136-163-00	FILM 0.068uF	5% 50V (G, IT)
C148	1-161-494-00	CERAMIC 0.022uF	25V
C155	1-162-286-31	CERAMIC 220PF	10% 50V (G, IT)
C157	1-136-161-00	FILM 0.047uF	5% 50V
C170	1-126-049-11	ELECT 22uF	20% 25V
△ C199	1-161-744-00	CERAMIC 0.01uF	400V
C201	1-126-161-11	ELECT 2.2uF	20% 50V
C202	1-162-282-31	CERAMIC 100PF	10% 50V
C203	1-126-022-11	ELECT 47uF	20% 16V
C204	1-106-347-00	MYLAR 1500PF	5% 200V
C205	1-130-480-00	MYLAR 0.0056uF	5% 50V
C206	1-124-464-11	ELECT 0.22uF	20% 50V
C207	1-126-022-11	ELECT 47uF	20% 16V
C208	1-162-286-31	CERAMIC 220PF	10% 50V (G, IT)
C209	1-162-219-31	CERAMIC 68PF	5% 50V
C210	1-162-207-31	CERAMIC 22PF	5% 50V
C212	1-126-163-11	ELECT 4.7uF	20% 50V
C213	1-126-163-11	ELECT 4.7uF	20% 50V
C214	1-162-286-31	CERAMIC 220PF	10% 50V (G, IT)
C215	1-162-286-31	CERAMIC 220PF	10% 50V (G, IT)
C216	1-162-219-31	CERAMIC 68PF	5% 50V
C217	1-162-294-31	CERAMIC 0.001uF	10% 50V
C218	1-126-059-11	ELECT 10uF	20% 50V
C219	1-126-022-11	ELECT 47uF	20% 16V
C238	1-126-059-11	ELECT 10uF	20% 50V
C239	1-162-282-31	CERAMIC 100PF	10% 50V
C240	1-162-286-31	CERAMIC 220PF	10% 50V
C241	1-126-101-11	ELECT 100uF	20% 16V
C243	1-124-910-11	ELECT 47uF	20% 50V
C244	1-136-163-00	FILM 0.068uF	5% 50V

MAIN

Ref. No.	Part No.	Description	Remark	
C245	1-136-163-00	FILM	0.068uF	5% 50V
C246	1-136-163-00	FILM	0.068uF	5% 50V (G. IT)
C247	1-136-163-00	FILM	0.068uF	5% 50V (G. IT)
C248	1-161-494-00	CERAMIC	0.022uF	25V
C255	1-161-286-31	CERAMIC	220PF	10% 50V (G. IT)
C257	1-136-161-00	FILM	0.047uF	5% 50V
C258	1-164-159-11	CERAMIC	0.1uF	50V
C260	1-124-122-11	ELECT	100uF	20% 50V
C270	1-126-049-11	ELECT	22uF	20% 25V
C301	1-161-494-00	CERAMIC	0.022uF	25V
C302	1-126-059-11	ELECT	10uF	20% 50V
C303	1-161-494-00	CERAMIC	0.022uF	25V
C304	1-161-494-00	CERAMIC	0.022uF	25V
C305	1-161-494-00	CERAMIC	0.022uF	25V
C306	1-136-158-00	FILM	0.027uF	5% 50V
C307	1-130-477-00	MYLAR	0.0033uF	5% 50V
C309	1-126-233-11	ELECT	22uF	20% 50V
C310	1-124-122-11	ELECT	100uF	20% 50V
C311	1-124-587-11	ELECT	220uF	20% 6.3V
C312	1-126-163-11	ELECT	4.7uF	20% 50V
C313	1-124-587-11	ELECT	220uF	20% 6.3V
C314	1-124-994-11	ELECT	100uF	20% 10V
C315	1-164-159-11	CERAMIC	0.1uF	50V
C316	1-164-159-11	CERAMIC	0.1uF	50V
C317	1-124-910-11	ELECT	47uF	20% 50V
C318	1-124-910-11	ELECT	47uF	20% 50V
C319	1-126-059-11	ELECT	10uF	20% 50V
C320	1-126-059-11	ELECT	10uF	20% 50V
C321	1-161-379-00	CERAMIC	0.01MF	30% 25V (G. IT)
C322	1-161-379-00	CERAMIC	0.01MF	30% 25V (G. IT)
C323	1-161-377-00	CERAMIC	0.0047MF	20% 50V (G. IT)
C324	1-161-377-00	CERAMIC	0.0047MF	20% 50V (G. IT)
C325	1-126-224-11	ELECT	4700uF	20% 42V
C326	1-126-224-11	ELECT	4700uF	20% 42V
C327	1-124-920-11	ELECT	330uF	20% 63V
C330	1-124-473-11	ELECT	1000uF	20% 10V
C331	1-102-394-11	CERAMIC	0.01uF	250V
C332	1-136-161-00	FILM	0.047uF	5% 50V
C333	1-136-161-00	FILM	0.047uF	5% 50V
C334	1-124-994-11	ELECT	100uF	20% 10V
C335	1-124-994-11	ELECT	100uF	20% 10V
C336	1-126-059-11	ELECT	10uF	20% 50V
C337	1-126-059-11	ELECT	10uF	20% 50V
C338	1-124-887-00	ELECT	3300uF	20% 16V
C339	1-124-887-00	ELECT	3300uF	20% 16V
C340	1-136-161-00	FILM	3300uF	5% 50V (UK)
C341	1-136-161-00	FILM	3300uF	5% 50V (UK)
C342	1-126-022-11	FILM	3300uF	5% 50V (UK)

Ref. No.	Part No.	Description	Remark	
C361	1-136-155-00	FILM	0.015uF	5% 50V
C362	1-136-161-00	FILM	0.047uF	5% 50V
C364	1-161-379-00	CERAMIC	0.01uF	30% 25V (G. IT)
C365	1-161-379-00	CERAMIC	0.01uF	30% 25V (G. IT)
C851	1-136-176-00	FILM	0.82uF	5% 50V
C852	1-136-164-00	FILM	0.082uF	5% 50V
C853	1-162-219-31	CERAMIC	68PF	5% 50V
C854	1-126-049-11	ELECT	22uF	20% 25V
C855	1-126-049-11	ELECT	22uF	20% 25V
C856	1-126-300-11	ELECT	0.47uF	20% 50V
C857	1-126-059-11	ELECT	10uF	20% 50V
C861	1-136-176-00	FILM	0.82uF	5% 50V
C862	1-136-164-00	FILM	0.082uF	5% 50V
C863	1-162-219-31	CERAMIC	68PF	5% 50V
C865	1-126-049-11	ELECT	22uF	20% 25V
C866	1-126-300-11	ELECT	0.47uF	20% 50V
C867	1-126-059-11	ELECT	10uF	20% 50V
C880	1-124-994-11	ELECT	100uF	20% 10V
C999	1-161-494-00	CERAMIC	0.022MF	25V (G. IT)

< CONNECTOR >

* CN101	1-564-321-00	PIN, CONNECTOR 2P	
CN102	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P	
* CN103	1-564-358-00	PIN, CONNECTOR 3P	(UK)
* CN104	1-566-859-11	SOCKET, CONNECTOR 15P	
* CN105	1-564-509-11	PLUG, CONNECTOR 6P	
* CN106	1-566-858-41	SOCKET, CONNECTOR 11P	
* CN107	1-564-507-11	PLUG, CONNECTOR 4P	
* CN109	1-564-337-00	PIN, CONNECTOR 3P	
* CN110	1-568-839-11	SOCKET, CONNECTOR 23P	
* CN113	1-564-339-00	PIN, CONNECTOR 5P	
* CN181	1-573-978-11	CONNECTOR, BOARD TO BOARD 11P	
CNJ101	1-565-352-41	JACK, PIN 2P	
CNJ102	1-565-258-11	JACK, PIN 4P	
CNJ103	1-565-352-11	JACK, PIN 2P	

< DIODE >

D101	8-719-200-77	DIODE	10E2N
D102	8-719-200-77	DIODE	10E2N
D103	8-719-200-77	DIODE	10E2N
D104	8-719-200-77	DIODE	10E2N
D105	8-719-987-63	DIODE	1N4148M
D106	8-719-987-63	DIODE	1N4148M
D107	8-719-815-85	DIODE	1S1585
D108	8-719-815-85	DIODE	1S1585
D109	8-719-302-38	DIODE	RBV-602-01
D113	8-719-200-82	DIODE	11ES2 (UK)
D114	8-719-934-21	DIODE	HZS30-1L (UK)
D114	8-719-002-66	DIODE	HZS33-2L (EXCEPT UK)
D115	8-719-200-77	DIODE	10E2N

MAIN

Ref. No.	Part No.	Description	Remark
D116	8-719-200-82	DIODE 11ES2 (UK)	
D117	8-719-200-82	DIODE 11ES2 (UK)	
D118	8-719-200-82	DIODE 11ES2	
D119	8-719-014-66	DIODE UZP-5.6B	
D120	8-719-815-85	DIODE 1S1585	
D121	8-719-815-85	DIODE 1S1585	
D122	8-719-815-85	DIODE 1S1585	
D123	8-719-815-85	DIODE 1S1585	
D124	8-719-815-85	DIODE 1S1585	
D125	8-719-000-84	DIODE UZL-7M1	
D126	8-719-000-84	DIODE UZL-7M1	
D128	8-719-815-85	DIODE 1S1585	
D218	8-719-000-81	DIODE UZL-7L3	
D221	8-719-000-84	DIODE UZL-7M1	
D222	8-719-000-84	DIODE UZL-7M1	
D862	8-719-987-63	DIODE 1N4148M	
D863	8-719-987-63	DIODE 1N4148M	

< FUSE >

△ F101	1-532-259-00	FUSE (T1.6A)
△ F103	1-532-203-00	FUSE (T2.0A)
△ F104	1-532-203-00	FUSE (T2.0A)

< IC >

IC101	8-759-604-86	IC M5F7807L
IC102	8-759-604-90	IC M5F7907L
IC103	8-749-920-09	IC STK-4152MK2K
IC104	8-759-000-48	IC MC14052BCP
IC105	8-759-140-53	IC MC14053BC
IC106	8-759-634-50	IC M5218AL
IC107	8-759-634-50	IC M5218AL
IC108	8-759-000-48	IC MC14052BCP
IC109	8-759-140-53	IC MC14053BCP
IC110	8-759-000-48	IC MC14052BCP
IC121	8-759-111-68	IC uPC1237HA
IC122	8-759-710-73	IC NJM4580L
IC855	8-759-634-50	IC M5218AL

< LINK, IC >

△ ICP101	1-532-842-11	LINK, IC
△ ICP102	1-532-842-11	LINK, IC



< COIL >

* L10	1-420-872-00	COIL, AIR CORE 1.9uH (G, IT)
* L11	1-420-872-00	COIL, AIR CORE 1.9uH (G, IT)
* L101	1-420-872-00	COIL, AIR CORE 1.9uH
* L102	1-420-872-00	COIL, AIR CORE 1.9uH

Ref. No.	Part No.	Description	Remark
< TRANSISTOR >			
Q101	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q102	8-729-900-63	TRANSISTOR DTA124ES	
Q103	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q104	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q853	8-729-900-63	TRANSISTOR DTA124ES	
Q854	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q855	8-729-224-61	TRANSISTOR 2SK246-Y	
Q856	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q857	8-729-224-61	TRANSISTOR 2SK246-Y	
Q858	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q859	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q860	8-729-141-26	TRANSISTOR 2SC3622A-LK	

< RESISTOR >

R71	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, G, IT, EE)
R72	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, G, IT, EE)
R101	1-249-417-11	CARBON 1K 5% 1/4W
R102	1-249-417-11	CARBON 1K 5% 1/4W (G, IT)
R103	1-249-441-11	CARBON 100K 5% 1/4W
R104	1-249-441-11	CARBON 100K 5% 1/4W
R105	1-249-415-11	CARBON 680 5% 1/4W
R106	1-249-437-11	CARBON 47K 5% 1/4W
R107	1-247-897-11	CARBON 560K 5% 1/4W
R108	1-249-417-11	CARBON 1K 5% 1/4W
R109	1-249-409-11	CARBON 220 5% 1/4W
R110	1-249-421-11	CARBON 2.2K 5% 1/4W
R111	1-249-428-11	CARBON 8.2K 5% 1/4W
R112	1-249-417-11	CARBON 1K 5% 1/4W
R113	1-247-903-00	CARBON 1M 5% 1/4W
R114	1-249-417-11	CARBON 1K 5% 1/4W
R115	1-249-417-11	CARBON 1K 5% 1/4W
R116	1-249-413-11	CARBON 470 5% 1/4W
R118	1-249-437-11	CARBON 47K 5% 1/4W
R119	1-249-437-11	CARBON 47K 5% 1/4W
R120	1-249-441-11	CARBON 100K 5% 1/4W
R121	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, G, IT, EE)
R122	1-249-427-11	CARBON 6.8K 5% 1/4W (AEP, G, IT, EE)
R123	1-249-432-11	CARBON 18K 5% 1/4W (AEP, G, IT, EE)
R124	1-249-421-11	CARBON 2.2K 5% 1/4W
R125	1-249-441-11	CARBON 100K 5% 1/4W
R126	1-249-429-11	CARBON 10K 5% 1/4W
R136	1-249-441-11	CARBON 100K 5% 1/4W
R137	1-249-417-11	CARBON 1K 5% 1/4W
R138	1-249-438-11	CARBON 56K 5% 1/4W
R139	1-249-438-11	CARBON 56K 5% 1/4W
R140	1-247-756-11	CARBON 2.2K 5% 1/2W
R142	1-247-756-11	CARBON 2.2K 5% 1/2W

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△R144	1-217-156-00	RES. METAL PLATE	0.22 5W F	R250	1-247-727-11	CARBON	10 5% 1/2W
R145	1-247-727-11	CARBON	10 5% 1/2W	△R252	1-215-918-00	METAL OXIDE	1.5K 5% 3W F
R147	1-249-417-11	CARBON	1K 5% 1/4W	R253	1-247-727-11	CARBON	10 5% 1/2W (G, IT)
R148	1-249-431-11	CARBON	15K 5% 1/4W	R254	1-249-441-11	CARBON	100K 5% 1/4W
R149	1-249-437-11	CARBON	47K 5% 1/4W	R256	1-249-414-11	CARBON	560 5% 1/4W
R150	1-247-727-11	CARBON	10 5% 1/2W	R257	1-249-441-11	CARBON	100K 5% 1/4W
△R152	1-215-918-00	METAL OXIDE	1.5K 5% 3W F	R301	1-249-433-11	CARBON	22K 5% 1/4W
R153	1-247-727-11	CARBON	10 5% 1/2W (G, IT)	R302	1-249-433-11	CARBON	22K 5% 1/4W
R156	1-249-414-11	CARBON	560 5% 1/4W	R303	1-249-433-11	CARBON	22K 5% 1/4W
R157	1-249-441-11	CARBON	100K 5% 1/4W	R304	1-249-433-11	CARBON	22K 5% 1/4W
R191	1-212-958-00	FUSIBLE	10 5% 1/2W F (UK)	R305	1-249-429-11	CARBON	10K 5% 1/4W
R192	1-212-958-00	FUSIBLE	10 5% 1/2W F (UK)	R307	1-249-415-11	CARBON	680 5% 1/4W
△R193	1-212-934-00	FUSIBLE	1 5% 1/2W F	R308	1-249-429-11	CARBON	10K 5% 1/4W
R201	1-249-417-11	CARBON	1K 5% 1/4W	R309	1-249-429-11	CARBON	10K 5% 1/4W
R202	1-249-417-11	CARBON	1K 5% 1/4W (G, IT)	R310	1-249-432-11	CARBON	18K 5% 1/4W
R203	1-249-441-11	CARBON	100K 5% 1/4W	R311	1-249-435-11	CARBON	33K 5% 1/4W
R205	1-249-415-11	CARBON	680 5% 1/4W	R312	1-249-433-11	CARBON	22K 5% 1/4W
R206	1-249-437-11	CARBON	47K 5% 1/4W	R313	1-249-433-11	CARBON	22K 5% 1/4W
R207	1-247-897-11	CARBON	560K 5% 1/4W	R316	1-247-752-11	CARBON	1K 5% 1/2W
R208	1-249-417-11	CARBON	1K 5% 1/4W	R318	1-247-752-11	CARBON	1K 5% 1/2W
R209	1-249-409-11	CARBON	220 5% 1/4W	△R320	1-212-881-11	FUSIBLE	100 5% 1/4W F
R210	1-249-421-11	CARBON	2.2K 5% 1/4W	△R321	1-212-881-11	FUSIBLE	100 5% 1/4W F
R211	1-249-428-11	CARBON	8.2K 5% 1/4W	△R322	1-215-891-11	METAL OXIDE	680 5% 2W F
R212	1-249-417-11	CARBON	1K 5% 1/4W	R323	1-249-429-11	CARBON	10K 5% 1/4W
R213	1-247-903-00	CARBON	1M 5% 1/4W	R324	1-249-427-11	CARBON	6.8K 5% 1/4W
R214	1-249-417-11	CARBON	1K 5% 1/4W	R325	1-249-427-11	CARBON	6.8K 5% 1/4W
R215	1-249-417-11	CARBON	1K 5% 1/4W	R326	1-249-437-11	CARBON	47K 5% 1/4W
R216	1-249-413-11	CARBON	470 5% 1/4W	R327	1-249-441-11	CARBON	100K 5% 1/4W
R218	1-249-437-11	CARBON	47K 5% 1/4W	R328	1-247-760-11	CARBON	4.7K 5% 1/2W
R219	1-249-437-11	CARBON	47K 5% 1/4W	R329	1-249-421-11	CARBON	2.2K 5% 1/4W
R220	1-249-441-11	CARBON	100K 5% 1/4W	R341	1-249-433-11	CARBON	22K 5% 1/4W
R221	1-249-425-11	CARBON	4.7K 5% 1/4W (AEP, G, IT, EE)	R342	1-249-425-11	CARBON	4.7K 5% 1/4W
R222	1-249-427-11	CARBON	6.8K 5% 1/4W (AEP, G, IT, EE)	R348	1-249-433-11	CARBON	22K 5% 1/4W
R223	1-249-432-11	CARBON	18K 5% 1/4W (AEP, G, IT, EE)	R349	1-249-433-11	CARBON	22K 5% 1/4W
R224	1-249-421-11	CARBON	2.2K 5% 1/4W	R352	1-249-437-11	CARBON	47K 5% 1/4W
R225	1-249-441-11	CARBON	100K 5% 1/4W	R410	1-249-435-11	CARBON	33K 5% 1/4W
R226	1-249-429-11	CARBON	10K 5% 1/4W	R411	1-249-435-11	CARBON	33K 5% 1/4W
R236	1-249-441-11	CARBON	100K 5% 1/4W	R412	1-249-426-11	CARBON	5.6K 5% 1/4W
R237	1-249-417-11	CARBON	1K 5% 1/4W	R851	1-249-417-11	CARBON	1K 5% 1/4W
R238	1-249-438-11	CARBON	56K 5% 1/4W	R852	1-249-441-11	CARBON	100K 5% 1/4W
R239	1-249-438-11	CARBON	56K 5% 1/4W	R853	1-249-425-11	CARBON	4.7K 5% 1/4W
R240	1-247-756-11	CARBON	2.2K 5% 1/2W	R854	1-249-425-11	CARBON	4.7K 5% 1/4W
R242	1-247-756-11	CARBON	2.2K 5% 1/2W	R855	1-249-412-11	CARBON	390 5% 1/4W
△R244	1-217-156-00	RES. METAL PLATE	0.22 5W F	R857	1-249-418-11	CARBON	1.2K 5% 1/4W
R245	1-247-727-11	CARBON	10 5% 1/2W	R858	1-249-438-11	CARBON	56K 5% 1/4W
R247	1-249-417-11	CARBON	1K 5% 1/4W	R859	1-249-429-11	CARBON	10K 5% 1/4W
R248	1-249-431-11	CARBON	15K 5% 1/4W	R860	1-249-429-11	CARBON	10K 5% 1/4W
R249	1-249-438-11	CARBON	56K 5% 1/4W	R861	1-249-417-11	CARBON	1K 5% 1/4W
				R862	1-249-441-11	CARBON	100K 5% 1/4W

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MAIN

PANEL

GEQ

H. P.

VOL

Ref. No.	Part No.	Description	Remark
R863	1-249-425-11	CARBON 4.7K 5% 1/4W	
R864	1-249-425-11	CARBON 4.7K 5% 1/4W	
R865	1-249-412-11	CARBON 390 5% 1/4W	
R867	1-249-418-11	CARBON 1.2K 5% 1/4W	
R868	1-249-438-11	CARBON 56K 5% 1/4W	

R869	1-249-429-11	CARBON 10K 5% 1/4W	
R870	1-247-887-00	CARBON 220K 5% 1/4W	
R871	1-249-433-11	CARBON 22K 5% 1/4W	
R872	1-249-423-11	CARBON 3.3K 5% 1/4W	
R873	1-249-423-11	CARBON 3.3K 5% 1/4W	

R876	1-249-417-11	CARBON 1K 5% 1/4W	
R878	1-247-887-00	CARBON 220K 5% 1/4W	
△R1076	1-212-940-00	FUSIBLE 1.8 5% 1/2W F (UK)	
△R1077	1-212-940-00	FUSIBLE 1.8 5% 1/2W F (UK)	

< RELAY >

RY101 1-515-765-11 RELAY

< SWITCH >

△S101 1-554-920-51 SWITCH, PUSH (AC POWER) (1 KEY)

< TERMINAL BOARD >

TB101 1-537-238-11 TERMINAL BOARD

* A-4347-257-A PANEL BOARD, COMPLETE

* A-4347-276-A GEQ BOARD, COMPLETE

* 1-642-746-11 H. P. BOARD

* 1-642-747-11 VOL BOARD

* 4-921-941-01 CUSHION (FL)

* 4-923-103-01 HOLDER, FL TUBE

* 4-950-658-01 HOLDER (FU), LED

* 4-950-660-01 HOLDER, LED

< CAPACITOR >

C50	1-124-257-00	ELECT 2.2uF 20% 50V	
C120	1-126-022-11	ELECT 47uF 20% 16V	
C121	1-126-059-11	ELECT 10uF 20% 50V	
C122	1-162-286-31	CERAMIC 220PF 10% 50V	
C123	1-106-359-00	MYLAR 4700PF 5% 200V	
C124	1-110-340-11	MYLAR 270PF 5% 50V	
C125	1-136-154-00	FILM 0.012uF 5% 50V	
C126	1-130-469-00	MYLAR 680PF 5% 50V	
C127	1-136-159-00	FILM 0.033uF 5% 50V	
C128	1-130-474-00	MYLAR 0.0018uF 5% 50V	

C129	1-136-163-00	FILM 0.068uF 5% 50V	
C130	1-130-478-00	MYLAR 0.0039uF 5% 50V	
C131	1-136-168-00	FILM 0.18uF 5% 50V	
C132	1-136-153-00	FILM 0.01uF 5% 50V	
C133	1-136-163-00	FILM 0.068uF 5% 50V	

C134	1-126-301-11	ELECT 1uF 20% 50V	
C135	1-136-158-00	FILM 0.027uF 5% 50V	
C136	1-126-300-11	ELECT 0.47uF 20% 50V	
C137	1-162-207-31	CERAMIC 22PF 5% 50V	
C210	1-126-022-11	ELECT 47uF 20% 16V	

C221	1-126-059-11	ELECT 10uF 20% 50V	
C222	1-162-286-31	CERAMIC 220PF 10% 50V	
C223	1-106-359-00	MYLAR 4700PF 5% 200V	
C224	1-110-340-11	MYLAR 270PF 5% 50V	
C225	1-136-154-00	FILM 0.012uF 5% 50V	

C226	1-130-469-00	MYLAR 680PF 5% 50V	
C228	1-130-474-00	MYLAR 0.0018uF 5% 50V	
C229	1-136-163-00	FILM 0.068uF 5% 50V	
C230	1-130-478-00	MYLAR 0.0039uF 5% 50V	
C231	1-136-168-00	FILM 0.18uF 5% 50V	

C232	1-136-153-00	FILM 0.01uF 5% 50V	
C233	1-136-163-00	FILM 0.068uF 5% 50V	
C234	1-126-301-11	ELECT 1uF 20% 50V	
C235	1-136-158-00	FILM 0.027uF 5% 50V	
C236	1-126-300-11	ELECT 0.47uF 20% 50V	



C237	1-162-207-31	CERAMIC 22PF 5% 50V	
C277	1-136-159-00	FILM 0.033uF 5% 50V	
C308	1-164-159-11	CERAMIC 0.1uF 50V	
C351	1-164-159-11	CERAMIC 0.1uF 50V	
C352	1-126-049-11	ELECT 22uF 20% 25V	

C375	1-164-159-11	CERAMIC 0.1uF 50V	
C418	1-164-159-11	CERAMIC 0.1uF 50V	
C419	1-136-153-00	FILM 0.01uF 5% 50V	
C420	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C422	1-125-486-11	DOUBLE LAYERS 0.22F 5.5V	

C423	1-161-494-00	CERAMIC 0.022uF 25V	
C424	1-164-159-11	CERAMIC 0.1uF 50V	
C425	1-126-049-11	ELECT 22uF 20% 25V	
C426	1-161-494-00	CERAMIC 0.022uF 25V	
C427	1-161-494-00	CERAMIC 0.022uF 25V	

C428	1-126-059-11	ELECT 10uF 20% 50V	
C429	1-126-059-11	ELECT 10uF 20% 50V	
C430	1-161-494-00	CERAMIC 0.022uF 25V	
C431	1-161-494-00	CERAMIC 0.022uF 25V	
C432	1-162-294-31	CERAMIC 0.001uF 10% 50V	

C433	1-126-059-11	ELECT 10uF 20% 50V	
C434	1-126-059-11	ELECT 10uF 20% 50V	
C435	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C436	1-161-494-00	CERAMIC 0.022uF 25V	

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 are critical for safety.
Replace only with part number
specified.

PANEL

GEQ

H. P.

VOL

Ref. No.	Part No.	Description	Remark
C437	1-124-994-11	ELECT	100uF 20% 10V
C444	1-126-049-11	ELECT	22uF 20% 25V
C601	1-136-165-00	FILM	0.1uF 5% 50V
C602	1-126-022-11	ELECT	47uF 20% 16V
C603	1-126-022-11	ELECT	47uF 20% 16V
C995	1-126-301-11	ELECT	1uF 20% 50V

< CONNECTOR >

* CN191	1-573-979-11	CONNECTOR, BOARD TO BOARD 11P
* CN502	1-568-839-11	SOCKET, CONNECTOR 23P
* CN503	1-568-322-11	PLUG, CONNECTOR 10P
CN601	1-568-321-11	SOCKET, CONNECTOR 10P
* CN609	1-564-339-00	PIN, CONNECTOR 5P

< COMPOSITION CIRCUIT BLOCK >

CP501	1-239-054-11	COMPOSITION CIRCUIT BLOCK
CP502	1-239-054-11	COMPOSITION CIRCUIT BLOCK
CP503	1-239-054-11	COMPOSITION CIRCUIT BLOCK
CP504	1-239-054-11	COMPOSITION CIRCUIT BLOCK

< DIODE >

D55	8-719-200-82	DIODE	11ES2
D127	8-719-000-54	DIODE	UZL-6L3
D501	8-719-987-63	DIODE	1N4148M
D502	8-719-200-82	DIODE	11ES2
D503	8-719-200-82	DIODE	11ES2
D505	8-719-000-60	DIODE	UZL-6M2
D506	8-719-987-63	DIODE	1N4148M
D507	8-719-987-63	DIODE	1N4148M
D508	8-719-987-63	DIODE	1N4148M
D509	8-719-987-63	DIODE	1N4148M
D510	8-719-987-63	DIODE	1N4148M
D511	8-719-987-63	DIODE	1N4148M
D512	8-719-987-63	DIODE	1N4148M
D521	8-719-301-39	LED	SEL2210S-D
D522	8-719-301-39	LED	SEL2210S-D
D523	8-719-301-39	LED	SEL2210S-D
D524	8-719-301-39	LED	SEL2210S-D
D525	8-719-301-39	LED	SEL2210S-D
D526	8-719-301-39	LED	SEL2210S-D
D527	8-719-301-39	LED	SEL2210S-D
D528	8-719-301-39	LED	SEL2210S-D
D529	8-719-301-39	LED	SEL2210S-D
D530	8-719-301-39	LED	SEL2210S-D
D531	8-719-301-39	LED	SEL2210S-D
D532	8-719-301-39	LED	SEL2210S-D
D533	8-719-301-39	LED	SEL2210S-D
D534	8-719-301-39	LED	SEL2210S-D
D535	8-719-313-69	DIODE	SEL3210S-CD

Ref. No.	Part No.	Description	Remark
D536	8-719-313-69	DIODE	SEL3210S-CD
D537	8-719-313-69	DIODE	SEL3210S-CD
D538	8-719-313-69	DIODE	SEL3210S-CD
D539	8-719-313-69	DIODE	SEL3210S-CD
D540	8-719-313-69	DIODE	SEL3210S-CD
D541	8-719-313-69	DIODE	SEL3210S-CD
D542	8-719-313-69	DIODE	SEL3210S-CD

D550	8-719-313-69	DIODE	SEL3210S-CD
D551	8-719-987-63	DIODE	1N4148M
D552	8-719-987-63	DIODE	1N4148M
D553	8-719-987-63	DIODE	1N4148M
D554	8-719-987-63	DIODE	1N4148M

D554	8-719-987-63	DIODE	1N4148M
D566	8-719-987-63	DIODE	1N4148M
D601	8-719-200-82	DIODE	11ES2
D603	8-719-933-33	DIODE	HZS6A1L

< FLUORESCENT INDICATOR >

FL501	1-519-648-31	INDICATOR TUBE, FLUORESCENT
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< IC >

IC111	8-759-633-78	IC	M5289P
IC112	8-759-822-26	IC	LC7522K
IC113	8-759-633-78	IC	M5289P
IC501	8-759-635-63	IC	M51943BSL
IC502	8-759-066-29	IC	uPD75108CW-C98
IC503	8-759-822-27	IC	LC7565K
IC504	8-759-991-11	IC	XR1091DCP
IC601	8-759-820-62	IC	LB1639

< JACK >

J901	1-507-854-00	JACK, PHONE	(HEADPHONES)
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< COIL >

L501	1-408-121-00	INDUCTOR	22uH
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< TRANSISTOR >

Q501	8-729-620-05	TRANSISTOR	2SC2603-EF
Q502	8-729-620-05	TRANSISTOR	2SC2603-EF
Q511	8-729-900-36	TRANSISTOR	DTC124ES
Q513	8-729-900-63	TRANSISTOR	DTA124ES
Q514	8-729-900-63	TRANSISTOR	DTA124ES
Q515	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q516	8-729-620-05	TRANSISTOR	2SC2603-EF
Q517	8-729-620-05	TRANSISTOR	2SC2603-EF
Q518	8-729-620-05	TRANSISTOR	2SC2603-EF
Q519	8-729-620-05	TRANSISTOR	2SC2603-EF

PANEL

GEQ

H. P.

VOL

Ref. No.	Part No.	Description	Remark
Q520	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q521	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q530	8-729-900-36	TRANSISTOR DTC124ES	
Q555	8-729-900-63	TRANSISTOR DTA124ES	

< RESISTOR >

R40	1-249-421-11	CARBON	2. 2K	5%	1/4W
R127	1-247-852-11	CARBON	7. 5K	5%	1/4W
R128	1-247-903-00	CARBON	1M	5%	1/4W
R129	1-247-903-00	CARBON	1M	5%	1/4W
R130	1-247-903-00	CARBON	1M	5%	1/4W
R131	1-247-903-00	CARBON	1M	5%	1/4W
R132	1-247-903-00	CARBON	1M	5%	1/4W
R133	1-247-903-00	CARBON	1M	5%	1/4W
R134	1-247-903-00	CARBON	1M	5%	1/4W
R135	1-247-852-11	CARBON	7. 5K	5%	1/4W
R227	1-247-852-11	CARBON	7. 5K	5%	1/4W
R228	1-247-903-00	CARBON	1M	5%	1/4W
R229	1-247-903-00	CARBON	1M	5%	1/4W
R230	1-247-903-00	CARBON	1M	5%	1/4W
R231	1-247-903-00	CARBON	1M	5%	1/4W
R232	1-247-903-00	CARBON	1M	5%	1/4W
R233	1-247-903-00	CARBON	1M	5%	1/4W
R234	1-247-903-00	CARBON	1M	5%	1/4W
R235	1-247-852-11	CARBON	7. 5K	5%	1/4W
R314	1-249-417-11	CARBON	1K	5%	1/4W
R315	1-249-417-11	CARBON	1K	5%	1/4W
R346	1-249-425-11	CARBON	4. 7K	5%	1/4W
R399	1-249-405-11	CARBON	100	5%	1/4W
R408	1-249-405-11	CARBON	100	5%	1/4W
R409	1-249-419-11	CARBON	1. 5K	5%	1/4W
R413	1-249-441-11	CARBON	100K	5%	1/4W
R414	1-249-432-11	CARBON	18K	5%	1/4W
R415	1-247-891-00	CARBON	330K	5%	1/4W
R416	1-249-425-11	CARBON	4. 7K	5%	1/4W
R417	1-249-437-11	CARBON	47K	5%	1/4W
R418	1-247-891-00	CARBON	330K	5%	1/4W
R421	1-249-433-11	CARBON	22K	5%	1/4W
R422	1-249-411-11	CARBON	330	5%	1/4W
R423	1-249-417-11	CARBON	1K	5%	1/4W
R424	1-247-903-00	CARBON	1M	5%	1/4W
R499	1-249-417-11	CARBON	1K	5%	1/4W
R521	1-249-425-11	CARBON	4. 7K	5%	1/4W
R522	1-249-425-11	CARBON	4. 7K	5%	1/4W
R524	1-249-417-11	CARBON	1K	5%	1/4W
R525	1-249-425-11	CARBON	4. 7K	5%	1/4W
R526	1-249-429-11	CARBON	10K	5%	1/4W
R527	1-249-393-11	CARBON	10	5%	1/4W
R528	1-249-417-11	CARBON	1K	5%	1/4W

R529	1-249-424-11	CARBON	3. 9K	5%	1/4W
R530	1-249-417-11	CARBON	1K	5%	1/4W
R532	1-249-421-11	CARBON	2. 2K	5%	1/4W
R533	1-249-421-11	CARBON	2. 2K	5%	1/4W
R534	1-249-441-11	CARBON	100K	5%	1/4W
R535	1-249-441-11	CARBON	100K	5%	1/4W
R536	1-249-417-11	CARBON	1K	5%	1/4W
R537	1-249-417-11	CARBON	1K	5%	1/4W
R538	1-249-417-11	CARBON	1K	5%	1/4W
R539	1-249-417-11	CARBON	1K	5%	1/4W
R540	1-249-417-11	CARBON	1K	5%	1/4W
R541	1-249-417-11	CARBON	1K	5%	1/4W
R542	1-249-417-11	CARBON	1K	5%	1/4W
R544	1-249-417-11	CARBON	1K	5%	1/4W
R545	1-249-429-11	CARBON	10K	5%	1/4W
R546	1-249-417-11	CARBON	1K	5%	1/4W
R547	1-249-429-11	CARBON	10K	5%	1/4W
R548	1-249-429-11	CARBON	10K	5%	1/4W
R549	1-249-417-11	CARBON	1K	5%	1/4W
R550	1-249-417-11	CARBON	1K	5%	1/4W
R551	1-249-435-11	CARBON	33K	5%	1/4W
R552	1-249-437-11	CARBON	47K	5%	1/4W
R553	1-249-429-11	CARBON	10K	5%	1/4W
R554	1-249-437-11	CARBON	47K	5%	1/4W
R555	1-249-429-11	CARBON	10K	5%	1/4W
R556	1-247-903-00	CARBON	1M	5%	1/4W
R561	1-249-410-11	CARBON	270	5%	1/4W
R562	1-249-411-11	CARBON	330	5%	1/4W
R563	1-249-411-11	CARBON	330	5%	1/4W
R564	1-249-411-11	CARBON	330	5%	1/4W
R565	1-249-410-11	CARBON	270	5%	1/4W
R566	1-249-411-11	CARBON	330	5%	1/4W
R567	1-249-411-11	CARBON	330	5%	1/4W
R568	1-249-411-11	CARBON	330	5%	1/4W
R569	1-249-410-11	CARBON	270	5%	1/4W
R570	1-249-410-11	CARBON	270	5%	1/4W
R571	1-249-410-11	CARBON	270	5%	1/4W
R572	1-249-410-11	CARBON	270	5%	1/4W
R573	1-249-399-11	CARBON	33	5%	1/4W
R574	1-249-399-11	CARBON	33	5%	1/4W
R575	1-249-399-11	CARBON	33	5%	1/4W
R576	1-249-399-11	CARBON	33	5%	1/4W
R577	1-249-399-11	CARBON	33	5%	1/4W
R578	1-249-411-11	CARBON	330	5%	1/4W
R579	1-249-411-11	CARBON	330	5%	1/4W
R580	1-249-411-11	CARBON	330	5%	1/4W
R581	1-249-411-11	CARBON	330	5%	1/4W
R582	1-249-411-11	CARBON	330	5%	1/4W

PANEL

GEQ

H. P.

VOL

Ref. No.	Part No.	Description	Remark
R586	1-249-425-11	CARBON 4.7K 5% 1/4W	
R588	1-249-425-11	CARBON 4.7K 5% 1/4W	
R589	1-249-425-11	CARBON 4.7K 5% 1/4W	
R595	1-249-437-11	CARBON 47K 5% 1/4W	
R596	1-249-437-11	CARBON 47K 5% 1/4W	
R597	1-249-437-11	CARBON 47K 5% 1/4W	
R598	1-249-437-11	CARBON 47K 5% 1/4W	
R599	1-249-417-11	CARBON 1K 5% 1/4W	
R601	1-249-412-11	CARBON 390 5% 1/4W	
R602	1-249-425-11	CARBON 4.7K 5% 1/4W	
R603	1-249-429-11	CARBON 10K 5% 1/4W	
R604	1-249-429-11	CARBON 10K 5% 1/4W	
R605	1-249-401-11	CARBON 47 5% 1/4W	
R607	1-247-830-11	CARBON 910 5% 1/4W	
R901	1-247-747-11	CARBON 470 5% 1/2W	
R911	1-247-747-11	CARBON 470 5% 1/2W	
R1599	1-249-425-11	CARBON 4.7K 5% 1/4W	
< VARIABLE RESISTOR >			
RV501	1-238-459-11	RES. VAR. CARBON 100K (BALANCE)	
RV502	1-241-307-11	RES. VAR. CARBON 10K/10K (DBFB LEVEL)	
RV601	1-238-708-21	RES. VAR. CARBON 10K/100K/100K (VOLUME)	
< SWITCH >			
S501	1-554-303-21	SWITCH, TACTILE (EQ-REC)	
S502	1-554-303-21	SWITCH, TACTILE (TUNER)	
S503	1-554-303-21	SWITCH, TACTILE (EQ)	
S504	1-554-303-21	SWITCH, TACTILE (SURROUND MODE)	
S505	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S511	1-554-303-21	SWITCH, TACTILE (DBFB)	
S512	1-554-303-21	SWITCH, TACTILE (CD)	
S513	1-554-303-21	SWITCH, TACTILE (PERSONAL FILE 1-5)	
S514	1-554-303-21	SWITCH, TACTILE (<)	
S515	1-554-303-21	SWITCH, TACTILE (REVRSE)	
S516	1-554-303-21	SWITCH, TACTILE (SURROUND LEVEL)	
S521	1-554-303-21	SWITCH, TACTILE (EFFECT)	
S522	1-554-303-21	SWITCH, TACTILE (TAPE)	
S523	1-554-303-21	SWITCH, TACTILE (SELECT 10)	
S524	1-554-303-21	SWITCH, TACTILE (Δ)	
S525	1-554-303-21	SWITCH, TACTILE (FLAT)	
S526	1-554-303-21	SWITCH, TACTILE (PHONO)	
S532	1-554-303-21	SWITCH, TACTILE (VIDEO)	
S533	1-554-303-21	SWITCH, TACTILE (▽)	
S534	1-554-303-21	SWITCH, TACTILE (▷)	
S535	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
S536	1-554-303-21	SWITCH, TACTILE (PROGRAM FUNCTION)	

Ref. No.	Part No.	Description	Remark
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< VIBRATOR >

X501 1-577-359-21 VIBRATOR, CERAMIC (4, 19MHz)

MISCELLANEOUS

8 1-690-697-11 WIRE (FLAT TYPE) (23 CORE)

△ 56 1-575-654-11 CORD, POWER (AEP, G. IT, EE)

△ 56 1-575-669-21 CORD, POWER (UK)

△ F101 1-532-259-00 FUSE (T1.6A)

△ F103 1-532-203-00 FUSE (T2.0A)

△ F104 1-532-203-00 FUSE (T2.0A)

△ T901 1-450-812-11 TRANSFORMER, POWER

ACCESSORIES & PACKING MATERIALS

4-920-940-01 SHEET (A), PROTECTION

* 4-934-859-01 CUSHION

HARDWARE LIST

#1 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S

#2 7-621-773-93 SCREW (PANEL 2.6 TP2)

#3 7-682-548-04 SCREW +BVTT 3X8 (S)

#4 7-685-650-79 SCREW +BVTP 3X16 TYPE2 IT-3

#5 7-682-560-04 SCREW +BVTT 4X6 (S)

#6 7-621-849-00 SCREW (BV/RING)

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

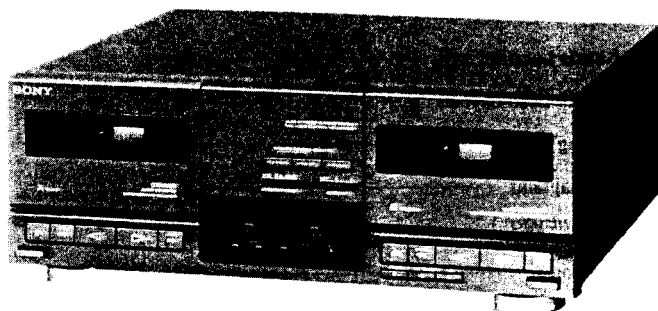
2A 200

TC-D507


5933

SERVICE MANUAL

*AEP Model
UK Model
E Model
Australian Model
East European Model*



• This set is the deck section in LBT-D507/D507CD/D507CDM.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	TC-H1600
Tape Transport Mechanism Type	DECK A : TCM-190RA12C
	DECK B : TCM-190RB22C

SPECIFICATIONS

Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF With Type IV cassette (Sony METAL-ES) 30 Hz to 15 kHz (± 3 dB) With Type II cassette (Sony UX-S) 40 Hz to 14 kHz (± 3 dB) With Type I cassette (Sony HF-S) 40 Hz to 14 kHz (± 3 dB)
Wow and flutter	$\pm 0.2\%$ (DIN)
Weight	Approx. 3.4 kg
Dimensions	Approx. 355 \times 131 \times 304 mm (w/h/d, including projections)

Design and specifications are subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.



CASSETTE DECK
SONY®

5933

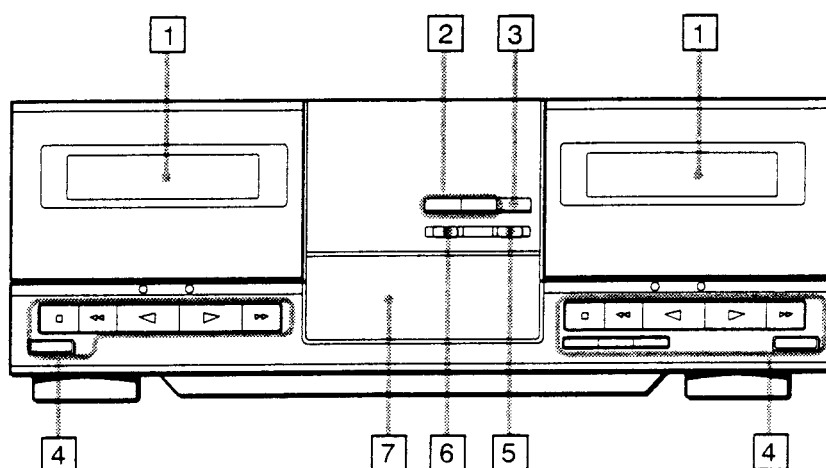
TABLE OF CONTENTS

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SECTION 1 GENERAL

Location of Controls

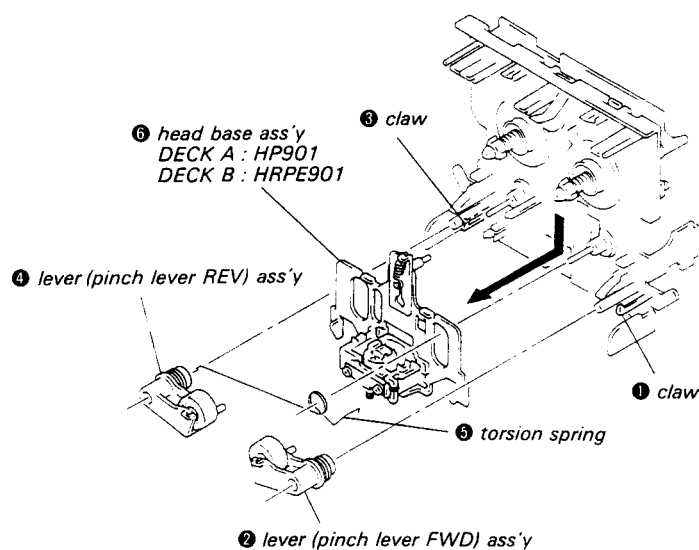
This section is extracted
from instruction manual.



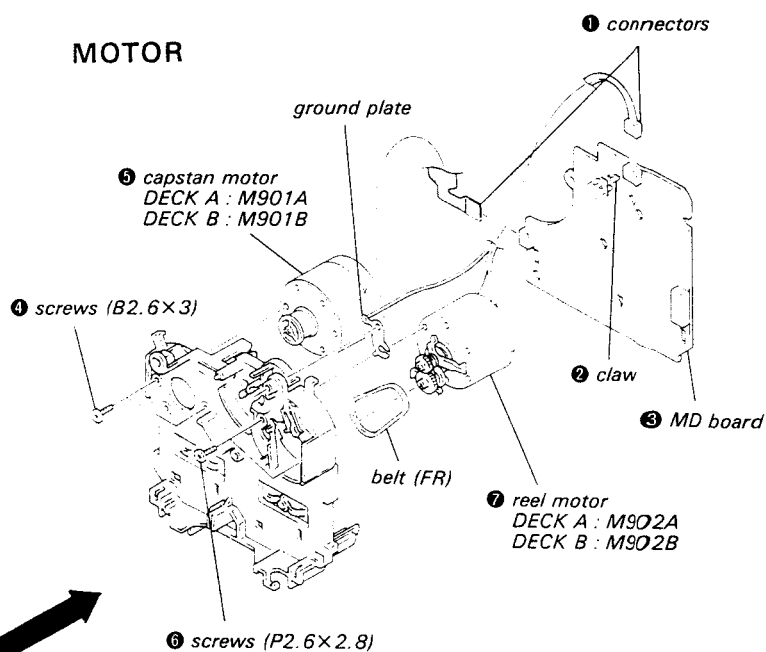
- 1 Cassette holders
- 2 SYNCHRO DUBBING buttons (44)
- 3 CD SYNCHRO button (48)
- 4 Tape operation buttons
 - ◀◀ Leftward fast winding/AMS*,
 - ▶▶ Rightward fast winding/AMS*,
 - ▶ Forward play, ◀ Reverse play,
 - Stop, ▲ Eject, || Pause (deck B only),
 - Record muting (deck B only),
 - Record (deck B only)
- 5 DOLBY NR (noise reduction) switch (36)
- 6 DIRECTION MODE selector (32, 36, 44, 48)
- 7 Display window

* AMS is the abbreviation of Automatic Music Sensor.

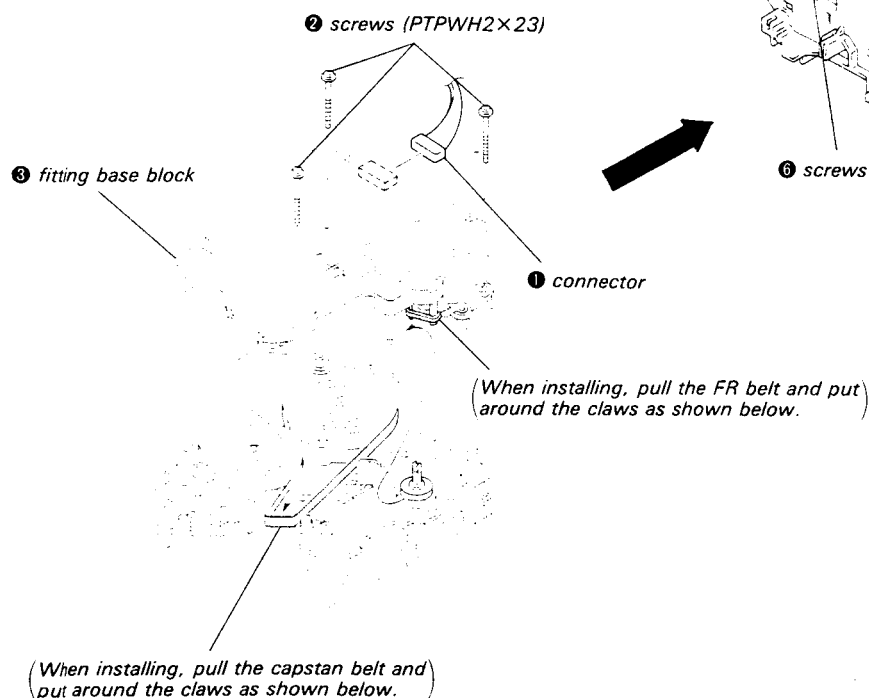
HEAD



MOTOR



FITTING BASE BLOCK



SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

CASE

Unscrew the four case attachment screws M3×8 and remove the case.

FRONT PANEL

② Remove the connectors.

④ front panel ass'y

CN806

CN805

CN802

① screws (BVTP3×8)

MECHANISM DECK

① Press the EJECT button.

② cassette lid

④ claw

Remove the cassette holder assembly.

⑤ mechanism deck

③ screws (BVTP2.6×8)

SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTION

- Clean the following parts with a denatured-alcoholmoistened swab;
 - record/playback/erase head
 - pinch roller
 - capstan
 - rubber belts
 - idler
- Demagnetize the record/playback head with a head demagnetizer.
(Head demagnetizer do not approach for the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed in the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	35 to 60g · cm (0.49 to 0.83 oz · inch)
FWD Back tension	CQ-102C	2 to 6g · cm (0.03 to 0.08 oz · inch)
REV	CQ-102RC	35 to 60g · cm (0.49 to 0.83 oz · inch)
REV Back tension	CQ-102RC	2 to 6g · cm (0.03 to 0.08 oz · inch)
FF, REW	CQ-201B	70 to 110g · cm (0.98 to 1.52 oz · inch)

SECTION 4 ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in the service manual. As a rule, adjustment about playback should be performed before adjustment about recording. The adjustments should be performed for both L-CH and R-CH.

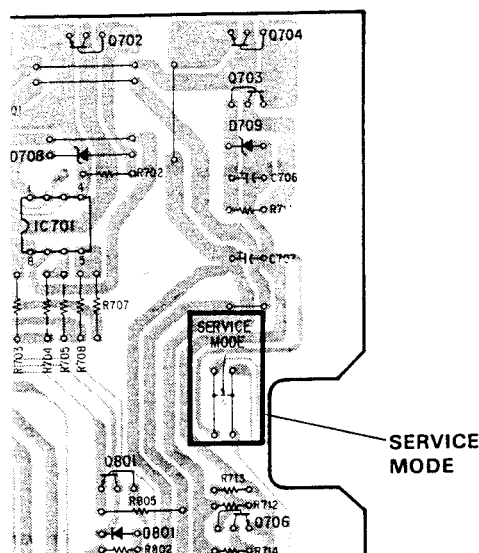
● Test Mode

The Test mode is activated by shorting Test Point Service mode (IC801 64 pin changes over to "L") with the POWER switch in OFF position, then turning on the POWER switch.

In this mode, the following functions operate:

- Source monitor
Line mute is cancelled during recording.
- High speed playback
High speed playback is executed when the HIGH SPEED (DUBBING) button is pressed during playback. Normal speed playback is restored when the button is pressed again.
- Record memory
The tape counter is reset to "0" at the record start point. After adjustment, open the Service mode to cancel the Test mode.

[MAIN BOARD] (CONDUCTOR SIDE)

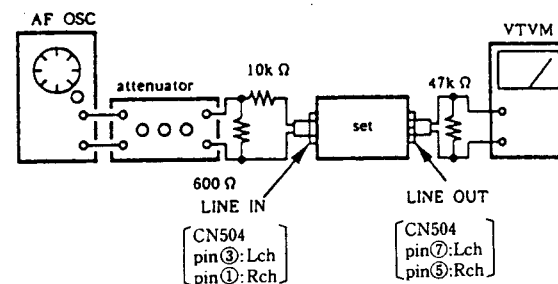


- Switches and controls should be set as follows unless otherwise specified.

NR switch : OFF
DIR MODE switch :

- Standard Record:
Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

Record Mode



Standard Input Level

input terminal	LINE IN
source impedance	10kΩ
input level	0.25V (-10dB)

Standard Output Level

output terminal	LINE OUT
load impedance	47kΩ
output level	0.44V (-5dB)

Test tape

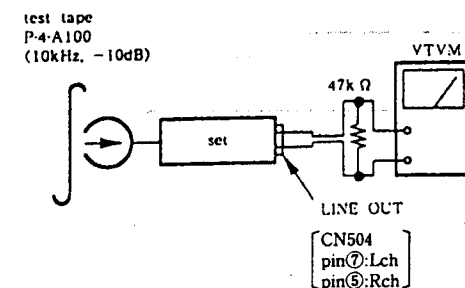
Type	Signal	Used for
P-4-A100	10kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/Playback Head Azimuth Adjustment

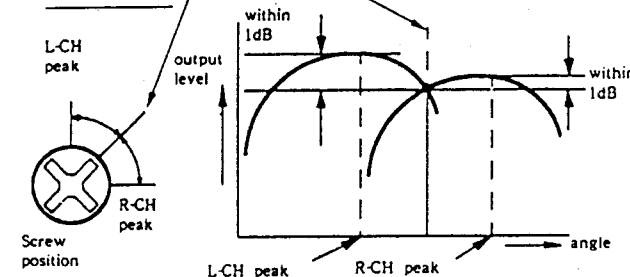
DECK A DECK B

Procedure :

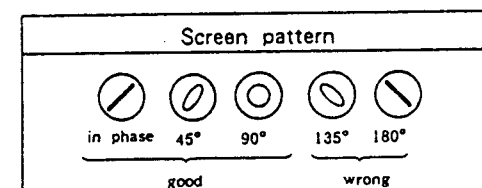
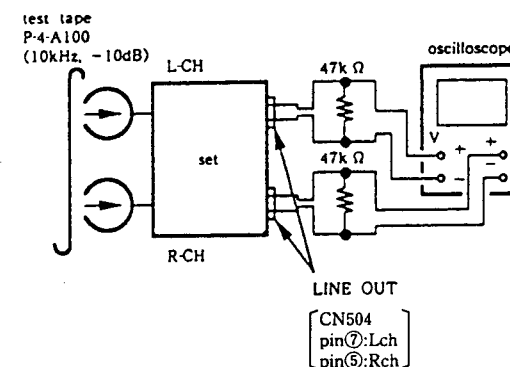
- Mode: FWD playback



- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.

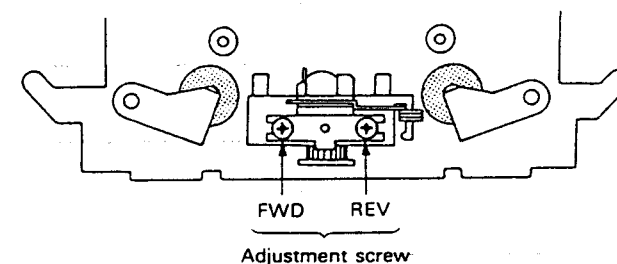


- Phase Check
Mode: playback



- Set in the REV mode and repeat the step 1-3.
- After the adjustment, lock the screws with locking compound.

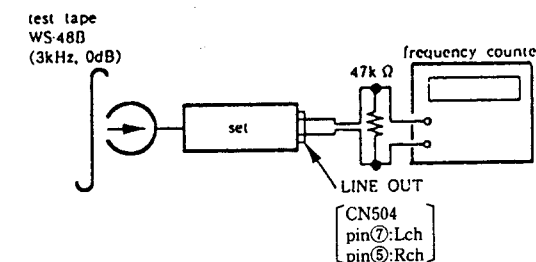
Adjustment Location : Record/playback head



Tape Speed Adjustment DECK A DECK B

Procedure :

Mode: playback



Perform high speed adjustment before normal speed adjustment.

(High speed adjustment)

- Continue pressing the SYNCHRO DUBBING HIGH SPEED switch.
- Check that frequency counter reading is within the standard value $6,000 \pm 60\text{Hz}$.
- If out of the standard, adjust each RV72 so that the frequency counter reading satisfies $6,000 \pm 60\text{Hz}$ on both A and B decks.
- Change over to Rev playback status, and repeat the above steps 1 to 3.

(Normal speed adjustment)

- Continue pressing the SYNCHRO DUBBING NORM SPEED switch.
- Check that the frequency counter reading is within the standard value $3,000 \pm 30\text{Hz}$.
- If out of the standard, adjust each RV71 so that the frequency counter reading satisfies $3,000 \pm 30\text{Hz}$ on both A and B decks.
- Change over to REV playback status, and repeat the above steps 1 to 3.

Frequency difference between the beginning and the end of the tape should be within 3%.

Frequency difference between deck A and deck B the beginning of the tape should be within 1.0%.

Adjustment Location :

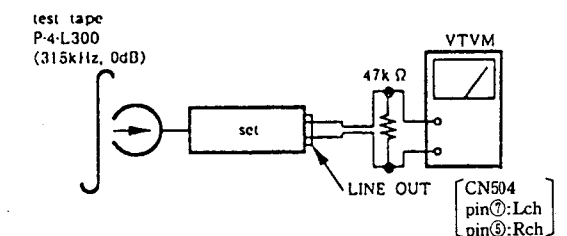
MD-A, MD-B board

Playback Level Adjustment

DECK A DECK B

Procedure :

Mode: playback



Adjust RV11 (L-CH), RV21 (R-CH) so that the reading on VTVM meets the adjustment limits below.

Adjustment Limits :

LINE OUT level: $-7.7 \pm 0.5\text{dB}$ (0.30 - 0.33V)

Level difference between channels: less than 0.5dB

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location : MD-A, MD-B board

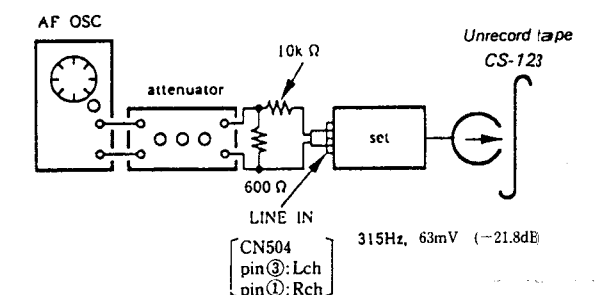
Record Bias Adjustment DECK B

Setting :

REC LEVEL control : Standard Record (See page 7).

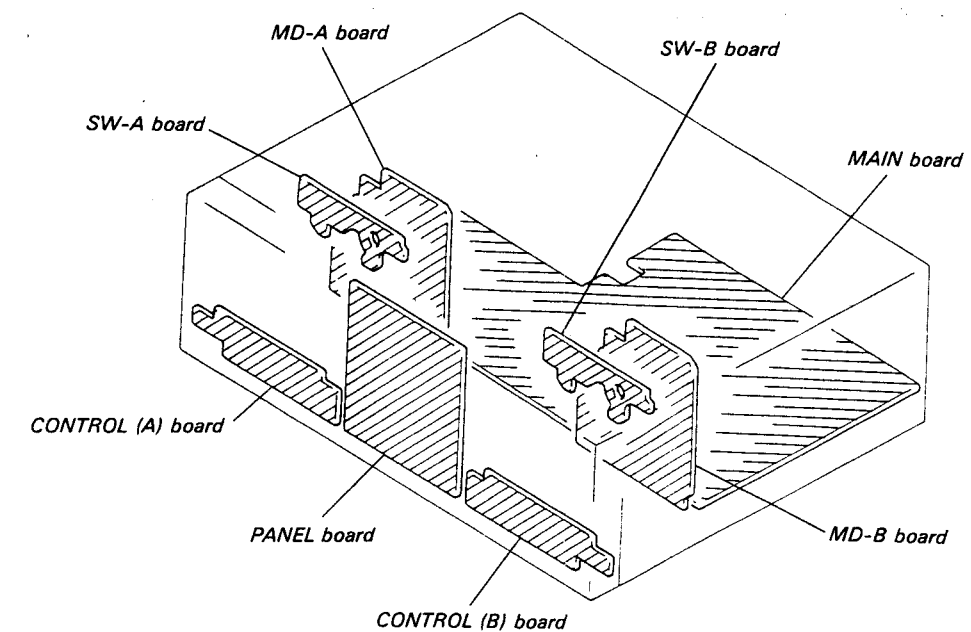
Procedure :

- Mode : record

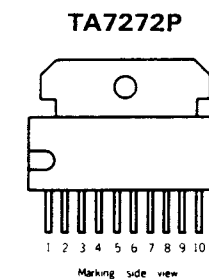


SECTION 5 DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



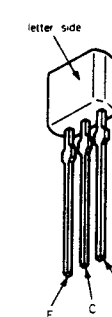
5-2. SEMICONDUCTOR LEAD LAYOUTS



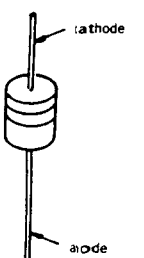
2SB1013-4



DTC144ES



HZS6A1N
UZL-7L2



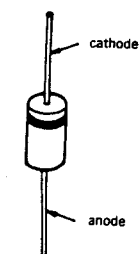
2SA1317-STU
2SC2603-EF
DTA114ES
DTA144ES
DTC143TS



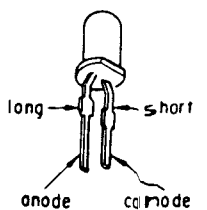
2SB1094-LK
2SD2012



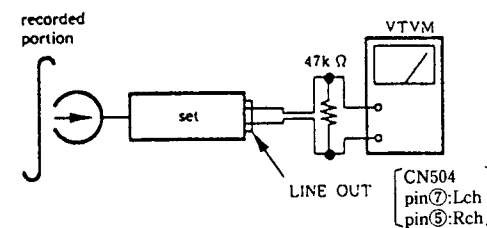
1N4148M
10E2N



SEL2210S-C
SEL2410E-D
SEL2910A-C



2. Mode : playback



Playback the signal recorded in step 1.
Confirm that the 10kHz playback output is $0 \pm 0.5\text{dB}$ relative to the 315Hz output. If necessary, adjust RV12 (L-CH), RV22 (R-CH) and repeat the steps given above.

Adjustment Location : MD-B board

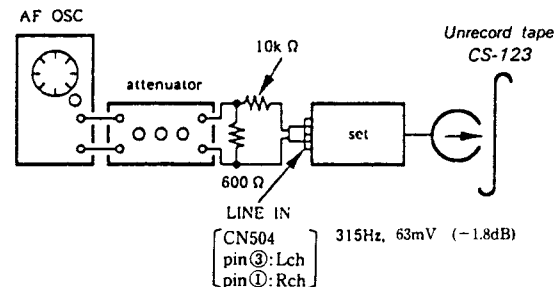
Record Level Adjustment **DECK B**

Setting :

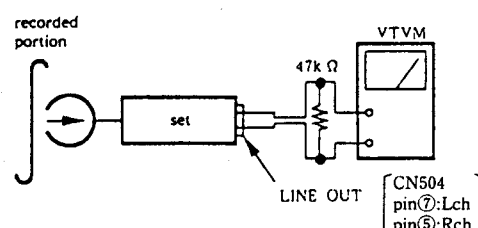
REC LEVEL control : Standard Record (See page 7).

Procedure :

1. Mode: record



2. Mode: playback



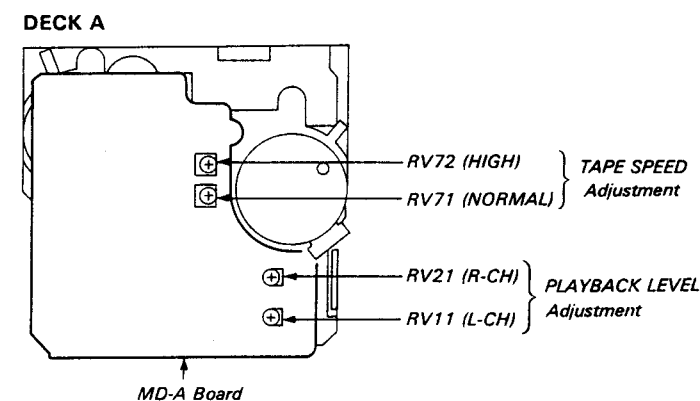
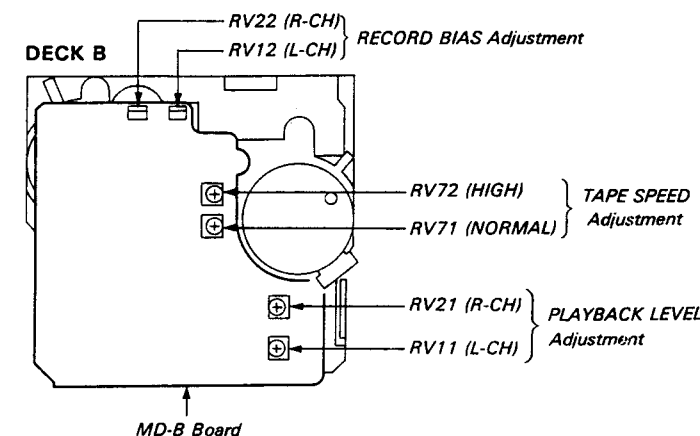
3. Playback the signal recorded in step 1.

Confirm that the signal level is within the adjustment limits below. If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat the step 1-2.

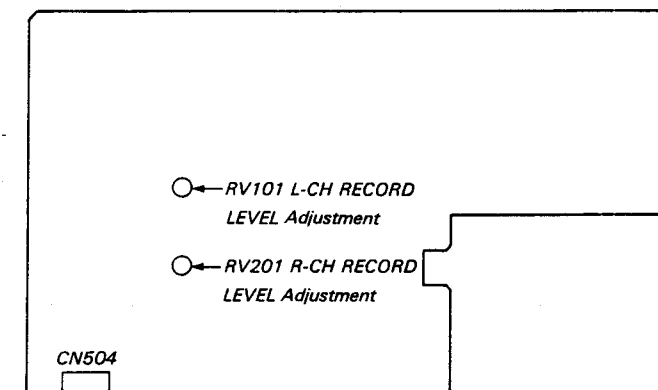
Adjustment Limits : $-3.8\text{dB} \pm 0.5\text{dB}$ ($0.47 \sim 0.53\text{V}$)

Adjustment Location : MAIN board (component side)

- Adjustment Parts Location Diagrams -



MAIN BOARD (COMPONENT SIDE)



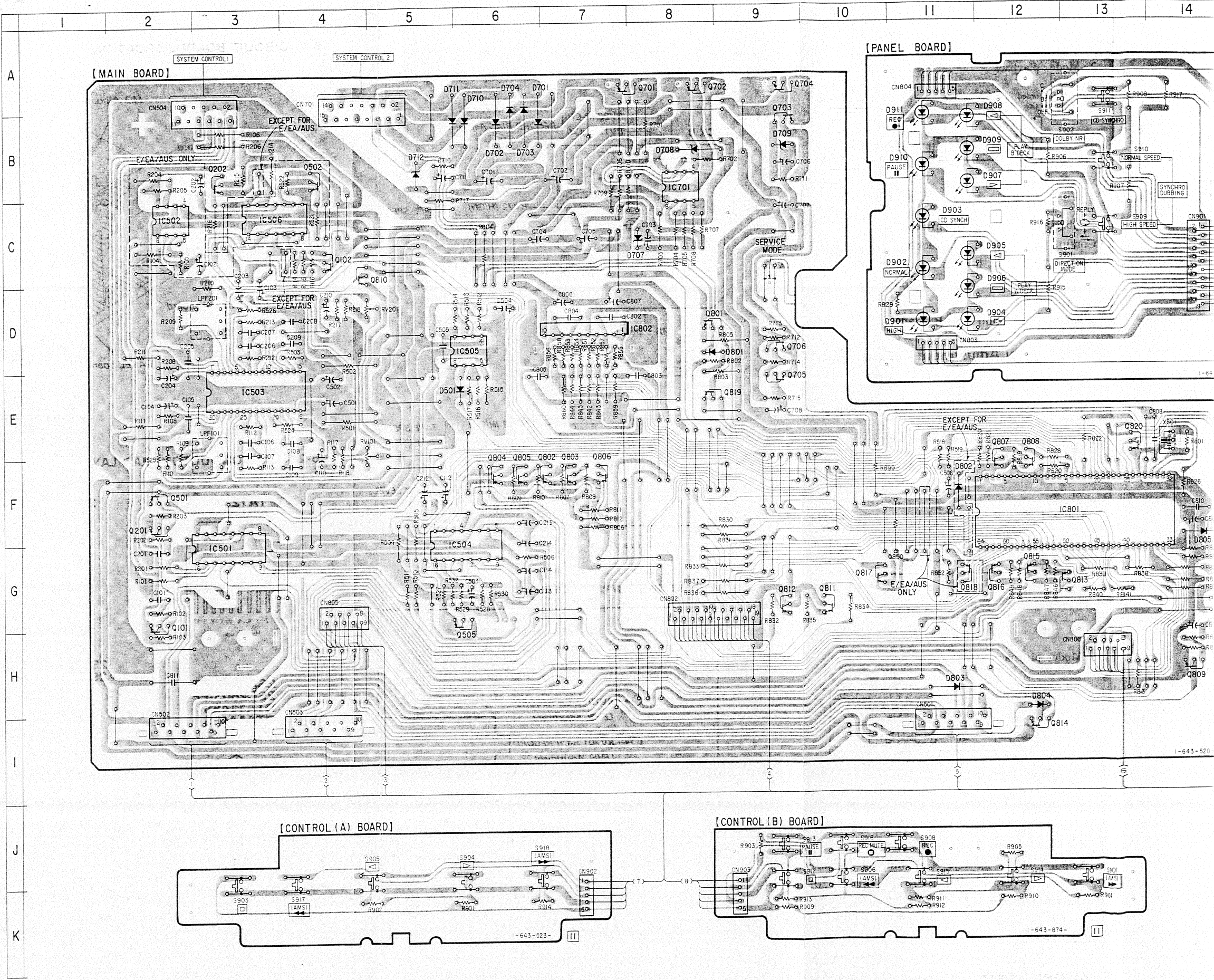
5-3. PRINTED WIRING BOARDS

● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D31	H-24	Q51	G-25
D501	E-6	Q52	G-25
D701	B-6	Q53	G-25
D702	B-6	Q71(MD-A)	H-20
D703	B-6	Q71(MD-B)	H-28
D704	B-6	Q101	G-2
D707	C-8	Q102	C-4
D708	B-8	Q201	F-2
D709	B-9	Q202	B-3
D710	B-6	Q501	F-2
D711	B-5	Q502	B-4
D712	B-5	Q505	G-6
D801	D-9	Q701	A-8
D802	F-11	Q702	A-8
D803	H-11	Q703	B-9
D804	H-12	Q704	A-9
D805	F-14	Q705	E-9
D901	D-11	Q706	D-9
D902	C-11	Q801	D-9
D903	C-11	Q802	F-7
D904	D-11	Q803	F-7
D905	C-11	Q804	F-6
D906	D-11	Q805	F-6
D907	B-11	Q806	F-7
D908	B-11	Q807	F-12
D909	B-11	Q808	F-12
D910	B-11	Q809	H-14
D911	B-11	Q810	C-4
		Q811	G-10
IC31(MD-A)	H-19	Q812	G-9
IC31(MD-B)	H-26	Q813	G-13
IC81(SW-A)	B-20	Q814	I-12
IC81(SW-B)	B-27	Q815	G-12
IC501	G-3	Q816	G-12
IC502	C-2	Q817	G-10
IC503	E-3	Q818	G-11
IC504	G-6	Q819	E-9
IC505	D-6	Q820	E-13
IC506	C-3		
IC701	B-8		
IC801	F-13		
IC802	D-6		

Note:
● — : parts extracted from the component side.

EA: Saudi Arabia
AUS: Australian

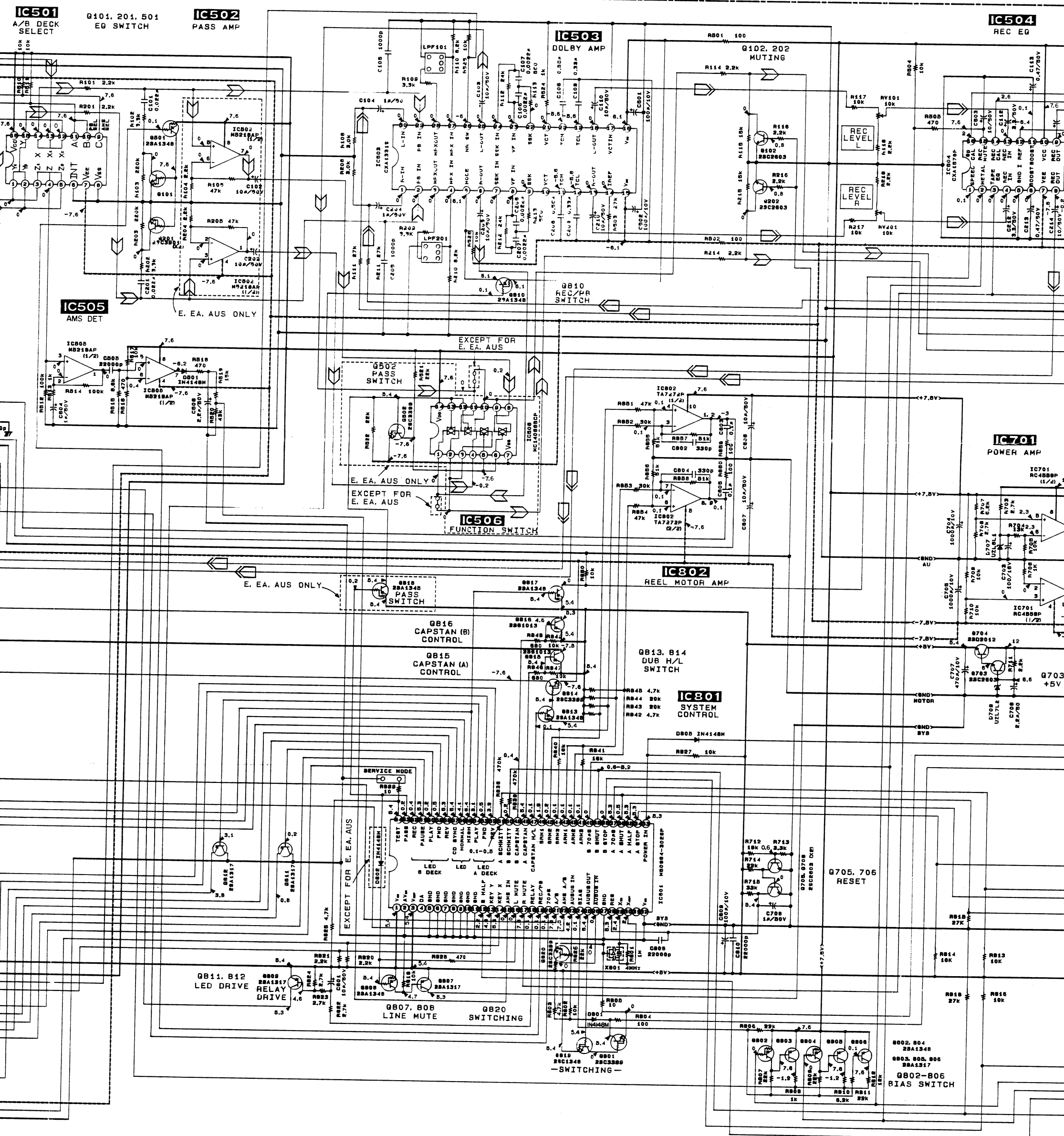


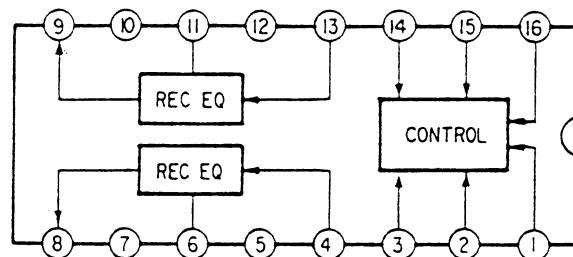
The schematic diagram illustrates the internal circuitry of a VCR, organized into several main sections:

- MD-A BOARD:** Contains the Capstan Motor (M801A), Reel Motor (M802A), and a Head Amplifier (IC31). It includes speed control components (RV72, RV71) and a Head Drive (Q71).
- MD-B BOARD:** Similar to MD-A, it contains the Capstan Motor (M801B), Reel Motor (M802B), and a Head Amplifier (IC31). It also includes speed control components and a Head Drive.
- MAIN BOARD:** The central processing unit, featuring a PB Level Amp (IC31), a PB Level Detector (IC501), and a PB Level Detector (IC505). It includes various control logic components and a BIAS OSC (Q51, Q52).
- CONTROL (A) BOARD:** Contains control logic components, including a BIAS OSC (Q51, Q52) and a BIAS OSC (Q53, Q54).
- CONTROL (B) BOARD:** Contains control logic components, including a BIAS OSC (Q51, Q52) and a BIAS OSC (Q53, Q54).
- PANEL BOARD:** Contains the user interface components, including a BIAS OSC (Q51, Q52) and a BIAS OSC (Q53, Q54).

The diagram includes numerous component values and pin numbers, providing a detailed view of the VCR's internal circuitry.

EA: Saudi Arabia
AUS: Australian





SECTION 6
EXPLODED VIEWS

NOTE:

• -XX, -X mean standardized parts, so they may have some differences from the original one.

• Color Indication of Appearance Parts

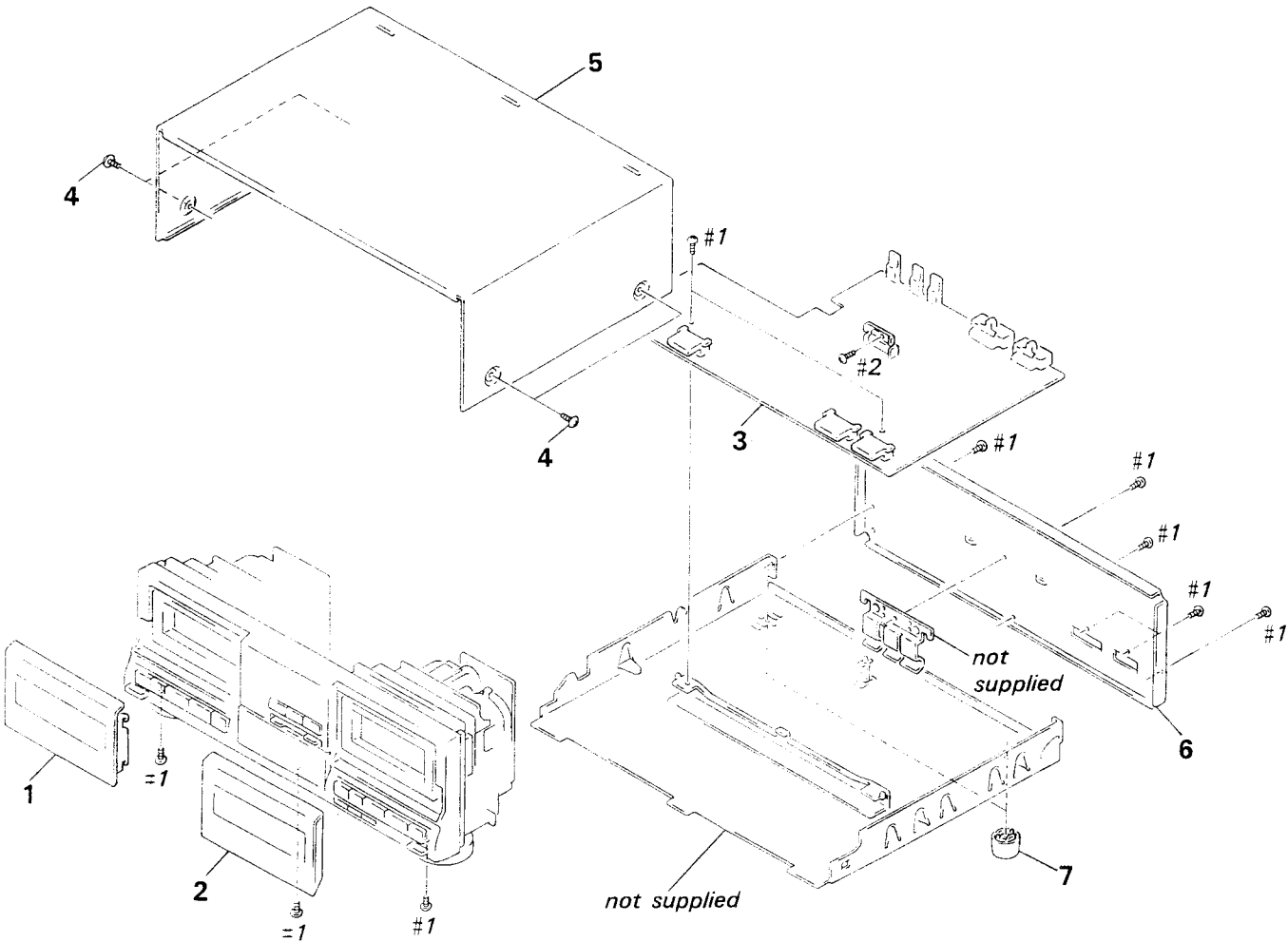
Example:
KNOB, BALANCE(WHITE)...(RED)

Parts color Cabinet's color

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.

G : Germany
IT : Italian
EE : East European
EA : Saudi Arabia
AUS : Australian

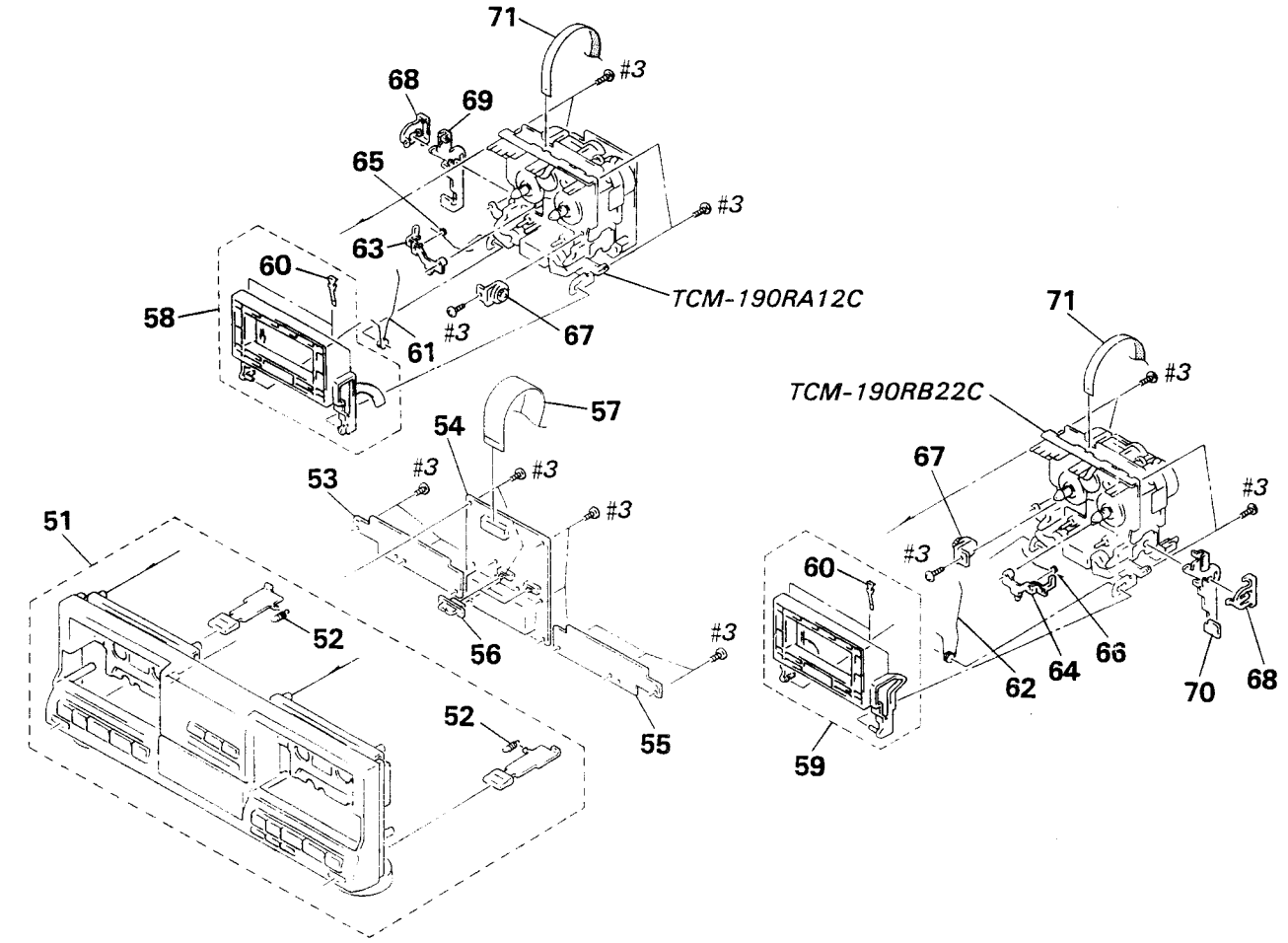
6-1. OVERALL SECTION



Ref. No.	Part No.	Description	Remark
1	X-3364-710-1	LID (A) ASSY, CASSETTE (AEP, G, EE, UK, E, EA, AUS)	
1	X-3364-711-1	LID (A) ASSY, CASSETTE (IT)	
2	X-3364-712-1	LID (B) ASSY, CASSETTE (AEP, G, EE, UK, E, EA, AUS)	
2	X-3364-713-1	LID (B) ASSY, CASSETTE (IT)	
* 3	A-2006-741-A	MAIN BOARD, COMPLETE (AEP, G, IT, EE, UK)	

Ref. No.	Part No.	Description	Remark
* 3	A-2006-742-A	MAIN BOARD, COMPLETE (E, EA, AUS)	
4	3-363-099-01	SCREW (CASE +3X8 TP2)	
* 5	4-939-803-31	CASE (AEP, G, EE, UK, E, EA, AUS)	
* 5	4-939-803-71	CASE (IT)	
* 6	3-377-136-11	PANEL, BACK (AEP, IT, EE, UK, E, EA, AUS)	
* 6	3-377-136-21	PANEL, BACK (G)	
7	4-931-169-01	FOOT	

6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-3364-706-1	PANEL ASSY, FRONT (AEP, G, EE, UK, E, EA, AUS)	
51	X-3364-707-1	PANEL ASSY, FRONT (IT)	
52	3-662-752-21	SPRING, TENSION	
* 53	1-643-523-11	CONTROL (A) BOARD	
* 54	1-643-521-11	PANEL BOARD	
* 55	1-643-874-11	CONTROL (B) BOARD	
56	3-377-110-01	KNOB (SLIDE) (AEP, G, EE, UK, E, EA, AUS)	
56	3-377-110-11	KNOB (SLIDE) (IT)	
57	1-590-237-11	WIRE, FLAT TYPE (19 CORE)	
58	X-3340-194-1	HOLDER (L) ASSY, CASSETTE	
59	X-3340-195-1	HOLDER (R) ASSY, CASSETTE	
60	3-308-823-11	SPRING	

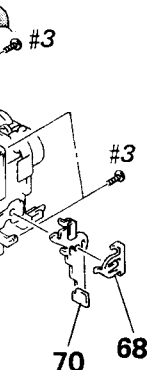
Ref. No.	Part No.	Description	Remark
61	3-354-959-01	SPRING (LOADING L), TORSION	
62	3-354-960-01	SPRING (LOADING R), TORSION	
63	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
64	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
65	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
66	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
67	3-354-963-01	DAMPER	
68	3-354-957-01	JOINT (LOCK LEVER)	
* 69	3-363-638-01	LEVER (LOCK LEVER L)	
* 70	3-363-639-01	LEVER (LOCK LEVER R)	
71	1-690-906-11	WIRE (FLAT TYPE) (9 CORE)	

6-3. MECHANICAL SECTION

(TCM-190RA12C)
(TCM-190RB22C)

Ref. No.	Part No.	Description	Remark
101	3-359-401-01	SCREW (CASE +3X8 TP2)	
102	3-359-402-01	CASE (AEP, G, EE, UK, E, EA, AUS)	
103	X-3359-403-01	CASE (IT)	
104	3-359-404-01	PANEL, BACK (AEP, IT, EE, UK, E, EA, AUS)	
105	X-3359-405-01	PANEL, BACK (G)	
106	X-3359-406-01	MAIN BOARD, COMPLETE (AEP, G, IT, EE, UK)	
107	3-359-407-01	MAIN BOARD, COMPLETE (E, EA, AUS)	
108	X-3359-408-01	SCREW (CASE +3X8 TP2)	
108	X-3364-706-1	PANEL ASSY, FRONT (AEP, G, EE, UK, E, EA, AUS)	
109	X-3359-409-01	PANEL ASSY, FRONT (IT)	
110	3-359-410-01	LID (A) ASSY, CASSETTE (AEP, G, EE, UK, E, EA, AUS)	
111	3-359-411-01	LID (A) ASSY, CASSETTE (IT)	
* 112	3-359-412-01	LID (B) ASSY, CASSETTE (AEP, G, EE, UK, E, EA, AUS)	
113	3-359-413-01	LID (B) ASSY, CASSETTE (IT)	
114	3-575-301-01	MAIN BOARD, COMPLETE (AEP, G, IT, EE, UK)	
115	3-359-415-01	MAIN BOARD, COMPLETE (E, EA, AUS)	

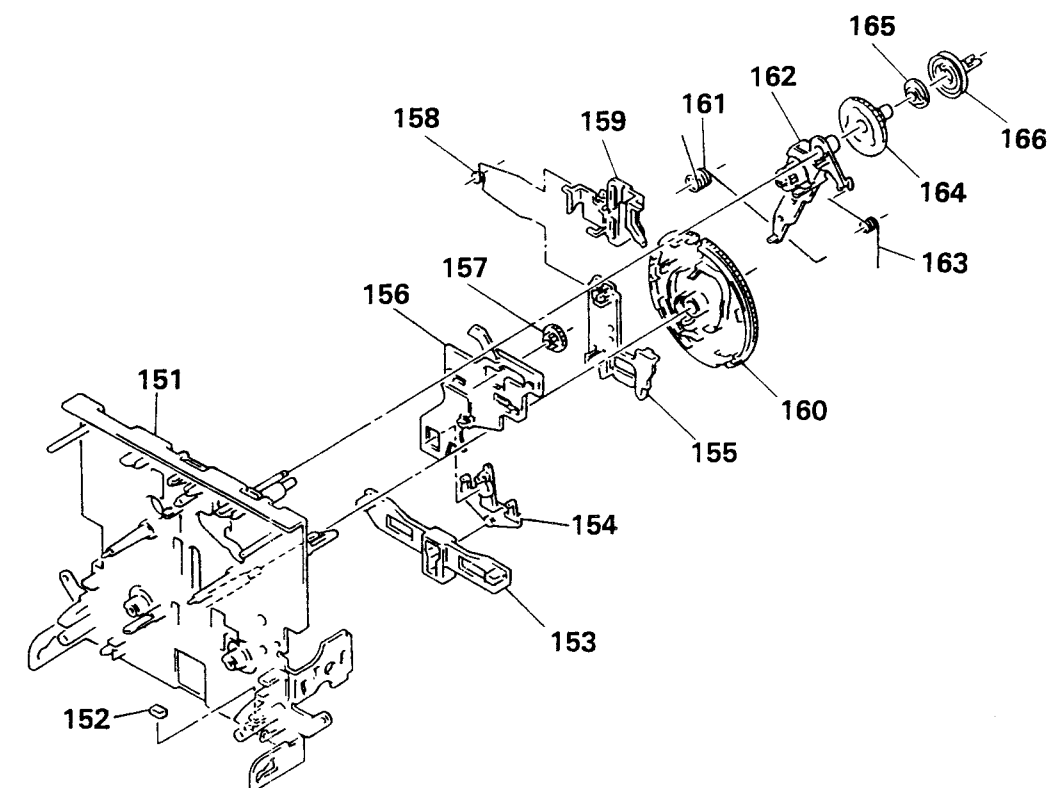
(TCM-190RA12C)
(TCM-190RB22C)



ION
ION
L)
R)
E)

L)
R)
E)

(TCM-190RA12C)
(TCM-190RB22C)



*
*
*

SECTION 7 ELECTRICAL PARTS LIST

MAIN

PANEL

CONTROL (A)

CONTROL (B)

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• SEMICONDUCTORS

In each case, u: μ , for example:uA...: μ A..., uPA...: μ PA...,uPB...: μ PB..., uPC...: μ PC...,uPD...: μ PD...

• CAPACITORS

uF: μ F

• COILS

uH: μ H

G : Germany



IT : Italian


EE : East European

EA : Saudi Arabia

AUS : Australian

When indication parts by reference number, please include the board name.

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
*	A-2006-741-A	MAIN BOARD, COMPLETE (AEP, G, IT, EE, UK)	

*	A-2006-742-A	MAIN BOARD, COMPLETE (E, EA, AUS)	

*	1-643-521-11	PANEL BOARD	

*	1-643-523-11	CONTROL (A) BOARD	

*	1-643-874-11	CONTROL (B) BOARD	

*	3-377-119-01	HOLDER, LED	
*	4-942-204-01	PLATE, GROUND	
	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
< CAPACITOR >			
C101	1-136-157-00	FILM 0.022uF 5% 50V	
C102	1-126-059-11	ELECT 10uF 20% 50V (E, EA, AUS)	
C103	1-126-059-11	ELECT 10uF 20% 50V	
C104	1-126-301-11	ELECT 1uF 20% 50V	
C105	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C106	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C107	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C108	1-136-174-00	FILM 0.56uF 5% 50V	
C109	1-136-171-00	FILM 0.33uF 5% 50V	
C110	1-126-059-11	ELECT 10uF 20% 50V	
C112	1-126-162-11	ELECT 3.3uF 20% 50V	
C113	1-126-300-11	ELECT 0.47uF 20% 50V	
C114	1-126-059-11	ELECT 10uF 20% 50V	
C201	1-136-157-00	FILM 0.022uF 5% 50V	
C202	1-126-059-11	ELECT 10uF 20% 50V (E, EA, AUS)	
C203	1-126-059-11	ELECT 10uF 20% 50V	
C204	1-126-301-11	ELECT 1uF 20% 50V	
C205	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C206	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C207	1-130-475-00	MYLAR 0.0022uF 5% 50V	

Ref. No.	Part No.	Description	Remark
C208	1-136-174-00	FILM 0.56uF 5% 50V	
C209	1-136-171-00	FILM 0.33uF 5% 50V	
C210	1-126-059-11	ELECT 10uF 20% 50V	
C212	1-126-162-11	ELECT 3.3uF 20% 50V	
C213	1-126-300-11	ELECT 0.47uF 20% 50V	
C214	1-126-059-11	ELECT 10uF 20% 50V	
C501	1-124-994-11	ELECT 100uF 20% 10V	
C502	1-124-994-11	ELECT 100uF 20% 10V	
C503	1-126-059-11	ELECT 10uF 20% 50V	
C504	1-126-301-11	ELECT 1uF 20% 50V	
C505	1-161-494-00	CERAMIC 0.022uF 25V	
C506	1-126-161-11	ELECT 2.2uF 20% 50V	
C701	1-124-887-00	ELECT 3300uF 20% 16V	
C702	1-124-887-00	ELECT 3300uF 20% 16V	
C703	1-126-101-11	ELECT 100uF 20% 16V	
C704	1-124-473-11	ELECT 1000uF 20% 10V	
C705	1-124-473-11	ELECT 1000uF 20% 10V	
C706	1-126-161-11	ELECT 2.2uF 20% 50V	
C707	1-124-472-11	ELECT 470uF 20% 10V	
C708	1-126-301-11	ELECT 1uF 20% 50V	
C711	1-126-161-11	ELECT 2.2uF 20% 50V	
C801	1-126-059-11	ELECT 10uF 20% 50V	
C802	1-162-288-31	CERAMIC 330PF 10% 50V	
C803	1-136-165-00	FILM 0.1uF 5% 50V	
C804	1-162-288-31	CERAMIC 330PF 10% 50V	
C805	1-136-165-00	FILM 0.1uF 5% 50V	
C806	1-126-059-11	ELECT 10uF 20% 50V	
C807	1-126-059-11	ELECT 10uF 20% 50V	
C808	1-161-494-00	CERAMIC 0.022uF 25V	
C809	1-124-994-11	ELECT 100uF 20% 10V	
C810	1-161-494-00	CERAMIC 0.022uF 25V	
C811	1-161-494-00	CERAMIC 0.022uF 25V	

MAIN

PANEL

CONTROL (A)

CONTROL (B)

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
* CN501	1-580-784-11	CONNECTOR, BOARD TO BOARD	
* CN502	1-580-784-11	CONNECTOR, BOARD TO BOARD	
* CN503	1-580-784-11	CONNECTOR, BOARD TO BOARD	
* CN504	1-566-858-41	SOCKET, CONNECTOR 11P (SYSTEM CONTROL 1)	
* CN701	1-566-859-11	SOCKET, CONNECTOR 15P (SYSTEM CONTROL 2)	
CN802	1-568-802-11	SOCKET, CONNECTOR 19P	
* CN803	1-691-670-11	CONNECTOR, BOARD TO BOARD 5P	
* CN804	1-691-670-11	CONNECTOR, BOARD TO BOARD 5P	
* CN805	1-568-828-11	SOCKET, CONNECTOR 9P	
* CN806	1-568-828-11	SOCKET, CONNECTOR 9P	
* CN901	1-568-862-11	SOCKET, CONNECTOR 19P	
* CN902	1-691-746-11	CONNECTOR, BOARD TO BOARD 5P	
* CN903	1-691-746-11	CONNECTOR, BOARD TO BOARD 5P	
		< DIODE >	
D501	8-719-987-63	DIODE 1N4148M	
D701	8-719-200-77	DIODE 10E2N	
D702	8-719-200-77	DIODE 10E2N	
D703	8-719-200-77	DIODE 10E2N	
D704	8-719-200-77	DIODE 10E2N	
D707	8-719-933-33	DIODE HZS6A1L	
D708	8-719-933-33	DIODE HZS6A1L	
D709	8-719-000-78	DIODE UZL-7L2	
D710	8-719-987-63	DIODE 1N4148M	
D711	8-719-987-63	DIODE 1N4148M	
D712	8-719-000-78	DIODE UZL-7L2	
D801	8-719-987-63	DIODE 1N4148M	
D802	8-719-987-63	DIODE 1N4148M (AEP, G. IT, EE, UK)	
D803	8-719-987-63	DIODE 1N4148M	
D804	8-719-987-63	DIODE 1N4148M	
D805	8-719-987-63	DIODE 1N4148M	
D901	8-719-301-38	LED SEL2210S-C (HIGH)	
D902	8-719-301-38	LED SEL2210S-C (NORMAL)	
D903	8-719-301-38	LED SEL2210S-C (CD SYNCH)	
D904	8-719-302-41	LED SEL2910A-C (A FWD)	
D905	8-719-302-41	LED SEL2910A-C (A REV)	
D906	8-719-301-44	LED SEL2410E-D (A STOP)	
D907	8-719-302-41	LED SEL2910A-C (B FWD)	
D908	8-719-302-41	LED SEL2910A-C (B REV)	
D909	8-719-301-44	LED SEL2410E-D (B STOP)	
D910	8-719-302-41	LED SEL2910A-C (PAUSE)	
D911	8-719-301-38	LED SEL2210S-C (REC)	
		< IC >	
IC501	8-759-140-53	IC uPD4053BC	
IC502	8-759-634-51	IC M5218AP (E. EA, AUS)	
IC503	8-752-059-55	IC CXA1331S	

Ref. No.	Part No.	Description	Remark
IC504	8-752-055-61	IC CXA1578P	
IC505	8-759-634-51	IC M5218AP	
IC506	8-759-000-49	IC MC14066BCP (E. EA, AUS)	
IC701	8-759-945-58	IC RC4558P	
IC801	8-759-061-69	IC M50964-302SP	
IC802	8-759-207-05	IC TA7272P	
		< FILTER >	
LPF101	1-236-087-11	FILTER, LOW PASS	
LPF201	1-236-087-11	FILTER, LOW PASS	
		< TRANSISTOR >	
Q101	8-729-900-74	TRANSISTOR DTC143TS	
Q102	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q201	8-729-900-74	TRANSISTOR DTC143TS	
Q202	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q501	8-729-900-61	TRANSISTOR DTA114ES	
Q502	8-729-900-89	TRANSISTOR DTC144ES (E. EA, AUS)	
Q505	8-729-900-65	TRANSISTOR DTA144ES	
Q701	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q702	8-729-209-15	TRANSISTOR 2SD2012	
Q703	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q704	8-729-209-15	TRANSISTOR 2SD2012	
Q705	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q706	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q801	8-729-900-89	TRANSISTOR DTC144ES	
Q802	8-729-900-61	TRANSISTOR DTA114ES	
Q803	8-729-821-04	TRANSISTOR 2SA1317-STU	
Q804	8-729-900-61	TRANSISTOR DTA114ES	
Q805	8-729-821-04	TRANSISTOR 2SA1317-STU	
Q806	8-729-821-04	TRANSISTOR 2SA1317-STU	
Q807	8-729-821-04	TRANSISTOR 2SA1317-STU	
Q808	8-729-900-61	TRANSISTOR DTA114ES	
Q809	8-729-821-04	TRANSISTOR 2SA1317-STU	
Q810	8-729-900-61	TRANSISTOR DTA114ES	
Q811	8-729-821-04	TRANSISTOR 2SA1317-STU	
Q812	8-729-821-04	TRANSISTOR 2SA1317-STU	
Q813	8-729-900-61	TRANSISTOR DTA114ES	
Q814	8-729-900-89	TRANSISTOR DTC144ES	
Q815	8-729-801-84	TRANSISTOR 2SB1013-4	
Q816	8-729-801-84	TRANSISTOR 2SB1013-4	
Q817	8-729-900-61	TRANSISTOR DTA114ES	
Q818	8-729-900-65	TRANSISTOR DTA144ES (E. EA, AUS)	
Q819	8-729-900-61	TRANSISTOR DTA114ES	
Q820	8-729-900-89	TRANSISTOR DTC144ES	
		< RESISTOR >	
R101	1-249-421-11	CARBON 2.2K 5% 1/4W	

MAIN

PANEL

CONTROL (A)

CONTROL (B)

Ref. No.	Part No.	Description	Remark		
R102	1-249-423-11	CARBON	3.3K	5%	1/4W
R103	1-247-887-00	CARBON	220K	5%	1/4W
R104	1-249-421-11	CARBON	2.2K	5%	1/4W (E. EA. AUS)
R105	1-249-437-11	CARBON	47K	5%	1/4W (E. EA. AUS)
R106	1-249-417-11	CARBON	1K	5%	1/4W
R108	1-247-842-11	CARBON	3K	5%	1/4W
R109	1-249-423-11	CARBON	3.3K	5%	1/4W
R110	1-249-428-11	CARBON	8.2K	5%	1/4W
R111	1-249-434-11	CARBON	27K	5%	1/4W
R112	1-247-864-11	CARBON	24K	5%	1/4W
R113	1-249-414-11	CARBON	560	5%	1/4W
R114	1-249-421-11	CARBON	2.2K	5%	1/4W
R115	1-249-431-11	CARBON	15K	5%	1/4W
R116	1-249-421-11	CARBON	2.2K	5%	1/4W
R117	1-249-429-11	CARBON	10K	5%	1/4W
R118	1-249-421-11	CARBON	2.2K	5%	1/4W
R201	1-249-421-11	CARBON	2.2K	5%	1/4W
R202	1-249-423-11	CARBON	3.3K	5%	1/4W
R203	1-247-887-00	CARBON	220K	5%	1/4W
R204	1-249-421-11	CARBON	2.2K	5%	1/4W (E. EA. AUS)
R205	1-249-437-11	CARBON	47K	5%	1/4W (E. EA. AUS)
R206	1-249-417-11	CARBON	1K	5%	1/4W
R208	1-247-842-11	CARBON	3K	5%	1/4W
R209	1-249-423-11	CARBON	3.3K	5%	1/4W
R210	1-249-428-11	CARBON	8.2K	5%	1/4W
R211	1-249-434-11	CARBON	27K	5%	1/4W
R212	1-247-864-11	CARBON	24K	5%	1/4W
R213	1-249-414-11	CARBON	560	5%	1/4W
R214	1-249-421-11	CARBON	2.2K	5%	1/4W
R215	1-249-431-11	CARBON	15K	5%	1/4W
R216	1-249-421-11	CARBON	2.2K	5%	1/4W
R217	1-249-429-11	CARBON	10K	5%	1/4W
R218	1-249-421-11	CARBON	2.2K	5%	1/4W
R501	1-249-405-11	CARBON	100	5%	1/4W
R502	1-249-405-11	CARBON	100	5%	1/4W
R503	1-249-434-11	CARBON	27K	5%	1/4W
R504	1-249-429-11	CARBON	10K	5%	1/4W
R505	1-249-413-11	CARBON	470	5%	1/4W
R506	1-247-864-11	CARBON	24K	5%	1/4W
R510	1-249-429-11	CARBON	10K	5%	1/4W
R511	1-249-429-11	CARBON	10K	5%	1/4W
R512	1-249-441-11	CARBON	100K	5%	1/4W
R513	1-249-417-11	CARBON	1K	5%	1/4W
R514	1-249-441-11	CARBON	100K	5%	1/4W
R515	1-249-427-11	CARBON	6.8K	5%	1/4W
R516	1-249-413-11	CARBON	470	5%	1/4W
R517	1-249-429-11	CARBON	10K	5%	1/4W
R518	1-249-413-11	CARBON	470	5%	1/4W
R519	1-249-431-11	CARBON	15K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R520	1-247-870-11	CARBON	43K	5%	1/4W
R521	1-249-433-11	CARBON	22K	5%	1/4W (E. EA. AUS)
R522	1-249-433-11	CARBON	22K	5%	1/4W (E. EA. AUS)
R524	1-249-417-11	CARBON	1K	5%	1/4W
R525	1-249-429-11	CARBON	10K	5%	1/4W
R526	1-249-429-11	CARBON	10K	5%	1/4W
R527	1-247-858-11	CARBON	13K	5%	1/4W
R528	1-247-862-11	CARBON	20K	5%	1/4W
R529	1-249-417-11	CARBON	1K	5%	1/4W
R530	1-249-429-11	CARBON	10K	5%	1/4W
R532	1-247-844-11	CARBON	3.6K	5%	1/4W
R701	1-249-413-11	CARBON	470	5%	1/4W
R702	1-249-413-11	CARBON	470	5%	1/4W
R703	1-249-422-11	CARBON	2.7K	5%	1/4W
R704	1-247-858-11	CARBON	13K	5%	1/4W
R705	1-249-429-11	CARBON	10K	5%	1/4W
R706	1-249-417-11	CARBON	1K	5%	1/4W
R707	1-247-850-11	CARBON	6.2K	5%	1/4W
R708	1-249-422-11	CARBON	2.7K	5%	1/4W
R709	1-249-429-11	CARBON	10K	5%	1/4W
R710	1-249-429-11	CARBON	10K	5%	1/4W
R711	1-249-421-11	CARBON	2.2K	5%	1/4W
R712	1-249-432-11	CARBON	18K	5%	1/4W
R713	1-249-423-11	CARBON	3.3K	5%	1/4W
R714	1-249-433-11	CARBON	22K	5%	1/4W
R715	1-249-435-11	CARBON	33K	5%	1/4W
R716	1-249-405-11	CARBON	100	5%	1/4W
R717	1-249-422-11	CARBON	2.7K	5%	1/4W
R801	1-247-903-00	CARBON	1M	5%	1/4W
R802	1-249-429-11	CARBON	10K	5%	1/4W
R803	1-249-425-11	CARBON	4.7K	5%	1/4W
R804	1-249-405-11	CARBON	100	5%	1/4W
R805	1-249-393-11	CARBON	10	5%	1/4W
R806	1-249-433-11	CARBON	22K	5%	1/4W
R807	1-249-433-11	CARBON	22K	5%	1/4W
R808	1-249-417-11	CARBON	1K	5%	1/4W
R809	1-249-433-11	CARBON	22K	5%	1/4W
R810	1-247-850-11	CARBON	6.2K	5%	1/4W
R811	1-249-433-11	CARBON	22K	5%	1/4W
R812	1-249-430-11	CARBON	12K	5%	1/4W
R813	1-249-429-11	CARBON	10K	5%	1/4W
R814	1-249-429-11	CARBON	10K	5%	1/4W
R815	1-249-434-11	CARBON	27K	5%	1/4W
R816	1-249-429-11	CARBON	10K	5%	1/4W
R818	1-249-434-11	CARBON	27K	5%	1/4W
R819	1-249-429-11	CARBON	10K	5%	1/4W
R820	1-249-421-11	CARBON	2.2K	5%	1/4W
R821	1-249-421-11	CARBON	2.2K	5%	1/4W
R822	1-249-422-11	CARBON	2.7K	5%	1/4W

MAIN

PANEL

CONTROL (A)

CONTROL (B)

MD-A

Ref. No.	Part No.	Description	Remark		
R823	1-249-422-11	CARBON	2.7K	5%	1/4W
R824	1-249-422-11	CARBON	2.7K	5%	1/4W
R825	1-249-425-11	CARBON	4.7K	5%	1/4W
R826	1-249-433-11	CARBON	22K	5%	1/4W
R827	1-249-429-11	CARBON	10K	5%	1/4W
R828	1-249-413-11	CARBON	470	5%	1/4W
R829	1-249-411-11	CARBON	330	5%	1/4W
R830	1-249-410-11	CARBON	270	5%	1/4W
R831	1-249-410-11	CARBON	270	5%	1/4W
R832	1-249-408-11	CARBON	180	5%	1/4W
R833	1-249-410-11	CARBON	270	5%	1/4W
R834	1-249-410-11	CARBON	270	5%	1/4W
R835	1-249-408-11	CARBON	180	5%	1/4W
R836	1-249-410-11	CARBON	270	5%	1/4W
R837	1-249-411-11	CARBON	330	5%	1/4W
R838	1-247-895-00	CARBON	470K	5%	1/4W
R839	1-247-895-00	CARBON	470K	5%	1/4W
R840	1-247-860-11	CARBON	16K	5%	1/4W
R841	1-249-431-11	CARBON	15K	5%	1/4W
R842	1-249-425-11	CARBON	4.7K	5%	1/4W
R843	1-247-862-11	CARBON	20K	5%	1/4W
R844	1-247-862-11	CARBON	20K	5%	1/4W
R845	1-249-425-11	CARBON	4.7K	5%	1/4W
R846	1-249-415-11	CARBON	680	5%	1/4W
R847	1-249-429-11	CARBON	10K	5%	1/4W
R848	1-249-415-11	CARBON	680	5%	1/4W
R849	1-249-429-11	CARBON	10K	5%	1/4W
R850	1-249-429-11	CARBON	10K	5%	1/4W
R851	1-249-437-11	CARBON	47K	5%	1/4W
R852	1-247-866-11	CARBON	30K	5%	1/4W
R853	1-247-866-11	CARBON	30K	5%	1/4W
R854	1-249-437-11	CARBON	47K	5%	1/4W
R855	1-247-872-11	CARBON	51K	5%	1/4W
R856	1-247-872-11	CARBON	51K	5%	1/4W
R857	1-247-872-11	CARBON	51K	5%	1/4W
R858	1-247-872-11	CARBON	51K	5%	1/4W
R859	1-249-405-11	CARBON	100	5%	1/4W
R860	1-249-405-11	CARBON	100	5%	1/4W
R899	1-249-393-11	CARBON	10	5%	1/4W
R901	1-249-407-11	CARBON	150	5%	1/4W
R902	1-249-409-11	CARBON	220	5%	1/4W
R903	1-249-411-11	CARBON	330	5%	1/4W
R904	1-249-413-11	CARBON	470	5%	1/4W
R905	1-249-415-11	CARBON	680	5%	1/4W
R906	1-249-417-11	CARBON	1K	5%	1/4W
R907	1-249-420-11	CARBON	1.8K	5%	1/4W
R908	1-249-424-11	CARBON	3.9K	5%	1/4W
R909	1-249-407-11	CARBON	150	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R910	1-249-409-11	CARBON	220	5%	1/4W
R911	1-249-411-11	CARBON	330	5%	1/4W
R912	1-249-413-11	CARBON	470	5%	1/4W
R913	1-249-415-11	CARBON	680	5%	1/4W
R914	1-249-417-11	CARBON	1K	5%	1/4W
R915	1-249-426-11	CARBON	5.6K	5%	1/4W
R916	1-249-430-11	CARBON	12K	5%	1/4W
R917	1-249-421-11	CARBON	2.2K	5%	1/4W
< VARIABLE RESISTOR >					
RV101	1-241-630-11	RES. ADJ. CARBON 10K			
RV201	1-241-630-11	RES. ADJ. CARBON 10K			
< SWITCH >					
S901	1-572-378-11	SWITCH, SLIDE (DIRECTION)			
S902	1-572-378-11	SWITCH, SLIDE (DOLBY NR)			
S903	1-554-303-21	SWITCH, TACTILE (A STOP)			
S904	1-554-303-21	SWITCH, TACTILE (A FWD)			
S905	1-554-303-21	SWITCH, TACTILE (A REV)			
S906	1-554-303-21	SWITCH, TACTILE (B REW)			
S907	1-554-303-21	SWITCH, TACTILE (B FF)			
S908	1-554-303-21	SWITCH, TACTILE (B REC)			
S909	1-554-303-21	SWITCH, TACTILE (DUB HIGH SPEED)			
S910	1-554-303-21	SWITCH, TACTILE (DUB NORMAL SPEED)			
S911	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)			
S912	1-554-303-21	SWITCH, TACTILE (B STOP)			
S913	1-554-303-21	SWITCH, TACTILE (B PAUSE)			
S914	1-554-303-21	SWITCH, TACTILE (B FWD)			
S915	1-554-303-21	SWITCH, TACTILE (B RVS)			
S916	1-554-303-21	SWITCH, TACTILE (B REC MUTE)			
S917	1-554-303-21	SWITCH, TACTILE (A REW)			
S918	1-554-303-21	SWITCH, TACTILE (A FF)			
< VIBRATOR >					
X801	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			

*	A-2006-399-A	MD-A BOARD, COMPLETE			

< CAPACITOR >					
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-234-00	ELECT	22uF	20%	16V
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-234-00	ELECT	22uF	20%	16V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V

MD-A

MD-B

Ref. No.	Part No.	Description	Remark
C31	1-124-234-00	ELECT 22uF	20% 16V
C32	1-124-234-00	ELECT 22uF	20% 16V
C72	1-124-499-11	ELECT, NONPOLAR 1uF	20% 50V

< CONNECTOR >

* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD	
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P	
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	

< IC >

IC31	8-759-106-02	IC uPC4570G2	
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< CHIP JUMPER >

JW1	1-216-295-00	METAL CHIP 0	5% 1/10W
JW51	1-216-296-00	METAL CHIP 0	5% 1/8W
JW52	1-216-296-00	METAL CHIP 0	5% 1/8W
JW53	1-216-296-00	METAL CHIP 0	5% 1/8W
JW54	1-216-296-00	METAL CHIP 0	5% 1/8W

< TRANSISTOR >

Q71	8-729-602-36	TRANSISTOR 2SA1602	
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< RESISTOR >

R11	1-216-099-00	METAL CHIP 120K	5% 1/10W
R12	1-216-025-00	METAL CHIP 100	5% 1/10W
R13	1-216-100-00	METAL GLAZE 130K	5% 1/10W
R14	1-216-067-00	METAL CHIP 5.6K	5% 1/10W
R21	1-216-099-00	METAL CHIP 120K	5% 1/10W
R22	1-216-025-00	METAL CHIP 100	5% 1/10W
R23	1-216-100-00	METAL GLAZE 130K	5% 1/10W
R24	1-216-067-00	METAL CHIP 5.6K	5% 1/10W
R31	1-216-033-00	METAL CHIP 220	5% 1/10W
R32	1-216-033-00	METAL CHIP 220	5% 1/10W
R71	1-216-082-00	METAL GLAZE 24K	5% 1/10W
R72	1-216-081-00	METAL CHIP 22K	5% 1/10W
R73	1-216-089-00	METAL CHIP 47K	5% 1/10W
R74	1-216-089-00	METAL CHIP 47K	5% 1/10W

< VARIABLE RESISTOR >

RV11	1-238-012-11	RES. ADJ. CARBON 1K	
RV21	1-238-012-11	RES. ADJ. CARBON 1K	
RV71	1-238-016-11	RES. ADJ. CARBON 10K	
RV72	1-238-016-11	RES. ADJ. CARBON 10K	

Ref. No.	Part No.	Description	Remark
*	A-2006-400-A	MD-B BOARD, COMPLETE	

< CAPACITOR >

C11	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C12	1-136-157-00	FILM 0.022uF	5% 50V
C13	1-124-234-00	ELECT 22uF	20% 16V
C14	1-136-273-91	FILM 75PF	5% 630V
C15	1-164-080-11	CERAMIC 390PF	10% 50V
C17	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C18	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C21	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C22	1-136-157-00	FILM 0.022uF	5% 50V
C23	1-124-234-00	ELECT 22uF	20% 16V
C24	1-136-273-91	FILM 75PF	5% 630V
C25	1-164-080-11	CERAMIC 390PF	10% 50V
C27	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C28	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C31	1-124-234-00	ELECT 22uF	20% 16V
C32	1-124-234-00	ELECT 22uF	20% 16V
C33	1-124-234-00	ELECT 22uF	20% 16V
C51	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
C52	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
C53	1-163-022-00	CERAMIC CHIP 0.012uF	10% 50V
C54	1-136-559-11	FILM 0.0047uF	5% 630V
C56	1-164-505-11	CERAMIC CHIP 2.2uF	16V
C57	1-164-346-11	CERAMIC CHIP 1uF	16V
C58	1-163-024-00	CERAMIC CHIP 0.018uF	10% 50V
C72	1-124-499-11	ELECT, NONPOLAR 1uF	20% 50V

< CONNECTOR >

* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD	
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD	
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P	
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	

< DIODE >

D31	8-719-988-62	DIODE 1SS355	
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< IC >

IC31	8-759-106-02	IC uPC4570G2	
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< CHIP JUMPER >

JW1	1-216-296-00	METAL CHIP 0	5% 1/8W
JW2	1-216-295-00	METAL CHIP 0	5% 1/10 W
JW3	1-216-295-00	METAL CHIP 0	5% 1/10 W
JW4	1-216-295-00	METAL CHIP 0	5% 1/10 W
JW5	1-216-295-00	METAL CHIP 0	5% 1/10 W

MD-B

SW-A

SW-B

Ref. No.	Part No.	Description	Remark
JW6	1-216-295-00	METAL CHIP	0 5% 1/10W
JW7	1-216-295-00	METAL CHIP	0 5% 1/10W
JW52	1-216-296-00	METAL CHIP	0 5% 1/8W
JW53	1-216-296-00	METAL CHIP	0 5% 1/8W
JW54	1-216-296-00	METAL CHIP	0 5% 1/8W
JW55	1-216-296-00	METAL CHIP	0 5% 1/8W
JW56	1-216-296-00	METAL CHIP	0 5% 1/8W
JW57	1-216-296-00	METAL CHIP	0 5% 1/8W
JW58	1-216-296-00	METAL CHIP	0 5% 1/8W
JW59	1-216-296-00	METAL CHIP	0 5% 1/8W
JW60	1-216-296-00	METAL CHIP	0 5% 1/8W
JW61	1-216-296-00	METAL CHIP	0 5% 1/8W
< COIL >			
L11	1-410-780-11	INDUCTOR	27mH
L21	1-410-780-11	INDUCTOR	27mH
< TRANSISTOR >			
Q51	8-729-808-01	TRANSISTOR	2SD1622-S
Q52	8-729-808-01	TRANSISTOR	2SD1622-S
Q53	8-729-808-01	TRANSISTOR	2SD1622-S
Q71	8-729-602-36	TRANSISTOR	2SA1602
< RESISTOR >			
R11	1-216-099-00	METAL CHIP	120K 5% 1/10W
R12	1-216-025-00	METAL CHIP	100 5% 1/10W
R13	1-216-100-00	METAL GLAZE	130K 5% 1/10W
R14	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
R15	1-249-430-11	CARBON	12K 5% 1/4W
R21	1-216-099-00	METAL CHIP	120K 5% 1/10W
R22	1-216-025-00	METAL CHIP	100 5% 1/10W
R23	1-216-100-00	METAL GLAZE	130K 5% 1/10W
R24	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
R25	1-249-430-11	CARBON	12K 5% 1/4W
R31	1-216-033-00	METAL CHIP	220 5% 1/10W
R32	1-216-033-00	METAL CHIP	220 5% 1/10W
R41	1-249-393-11	CARBON	10 5% 1/4W
R42	1-249-393-11	CARBON	10 5% 1/4W
R51	1-216-075-00	METAL CHIP	12K 5% 1/10W
R52	1-216-075-00	METAL CHIP	12K 5% 1/10W
R53	1-216-073-00	METAL CHIP	10K 5% 1/10W
R54	1-216-309-00	METAL CHIP	5.6 5% 1/10W
R55	1-216-309-00	METAL CHIP	5.6 5% 1/10W
R56	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R71	1-216-082-00	METAL GLAZE	24K 5% 1/10W
R72	1-216-081-00	METAL CHIP	22K 5% 1/10W
R73	1-216-089-00	METAL CHIP	47K 5% 1/10W
R74	1-216-089-00	METAL CHIP	47K 5% 1/10W

Ref. No.	Part No.	Description	Remark
< VARIABLE RESISTOR >			
RV11	1-238-012-11	RES. ADJ. CARBON 1K	
RV12	1-238-551-11	RES. ADJ. CARBON 220K	
RV21	1-238-012-11	RES. ADJ. CARBON 1K	
RV22	1-238-551-11	RES. ADJ. CARBON 220K	
RV71	1-238-016-11	RES. ADJ. CARBON 10K	
RV72	1-238-016-11	RES. ADJ. CARBON 10K	
< RELAY >			
RY31	1-515-726-11	RELAY	
< COIL >			
T51	1-406-419-11	COIL. BIAS OSCILLATION	

*	1-634-841-14	SW-A BOARD	

	3-343-419-01	HOLDER (S SENSER A)	
< CONNECTOR >			
* CNP81	1-568-852-11	SOCKET. CONNECTOR 9P	
< IC >			
IC81	8-719-710-03	DIODE NJL5165K-B	
< RESISTOR >			
R84	1-249-417-11	CARBON 1K 5% 1/4W	
R85	1-249-408-11	CARBON 180 5% 1/4W	
< SWITCH >			
S81	1-571-958-11	SWITCH. PUSH (1 KEY) (STOP)	
S82	1-571-281-21	SWITCH. LEAF (70EQ)	
S86	1-571-281-21	SWITCH. LEAF (HALF)	

*	1-634-841-14	SW-B BOARD	

	3-343-419-01	HOLDER (S SENSER A)	
< CONNECTOR >			
* CNP81	1-568-852-11	SOCKET. CONNECTOR 9P	
< IC >			
IC81	8-719-710-03	DIODE NJL5165K-B	

Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

< RESISTOR >

R81	1-249-414-11	CARBON	560 5% 1/4W
R82	1-247-818-11	CARBON	300 5% 1/4W
R83	1-247-834-11	CARBON	1.3K 5% 1/4W
R84	1-249-417-11	CARBON	1K 5% 1/4W
R85	1-249-408-11	CARBON	180 5% 1/4W

< SWITCH >

S81	1-571-958-11	SWITCH. PUSH (1 KEY) (STOP)
S82	1-571-281-21	SWITCH. LEAF (70EQ)
S83	1-571-281-21	SWITCH. LEAF (METAL)
S84	1-571-281-21	SWITCH. LEAF (REC A)
S85	1-571-281-21	SWITCH. LEAF (REC B)

S86	1-571-281-21	SWITCH. LEAF (HALF)
-----	--------------	---------------------

MISCELLANEOUS

57	1-590-237-11	WIRE. FLAT TYPE (19 CORE)
71	1-690-906-11	WIRE (FLAT TYPE) (9 CORE)
121	1-638-983-11	MOTOR FLEXIBLE BOARD
HP901	A-2003-837-A	BASE ASSY. HEAD (PB) (DECK A)
HRPE901A	2003-838-A	BASE ASSY. HEAD (REC/PB/ERASE) (DECK B)

M901A	X-3359-417-1	MOTOR ASSY (CAPSTAN) (DECK A)
M901B	X-3359-417-1	MOTOR ASSY (CAPSTAN) (DECK B)
M902A	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)
M902B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)

ACCESSORIES & PACKING MATERIALS

*	3-350-154-01	CUSHION
	4-920-940-01	SHEET (A), PROTECTION

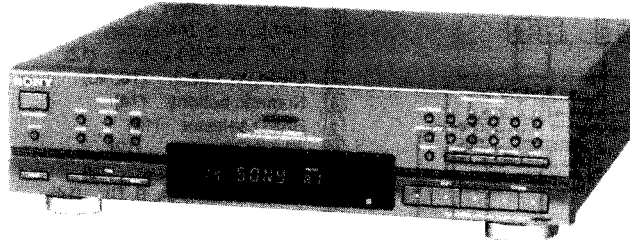
HARDWARE LIST

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S
#3	7-621-773-93	SCREW (PANEL 2.6 TP2)
#4	7-621-775-00	SCREW +B 2.6X3
#5	7-627-556-08	SCREW +P 2.6X2.8

ST-D707

SERVICE MANUAL

*AEP Model
UK Model
East European Model*



• This set is the TUNER section in LBT-D507/D607/D707.

SPECIFICATIONS

System	FM stereo FM/AM superheterodyne tuner
FM tuner section	
Tuning range	87.5 to 108 MHz
Antenna	75 ohms unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	MW: 531 to 1,602 kHz LW: 153 to 279 kHz
Antenna	AM loop antenna External antenna terminal
Intermediate frequency	450 kHz

Power requirements	240 V AC, 50/60 Hz
Power consumption	10 W
AC outlet	2 switched, total 450 W max.
Weight	Approx. 2.7 kg (6 lbs 5 oz)
Dimensions	Approx. 355 x 95 x 310 mm (14 x 3 3/4 x 12 1/4 inches) (w/h/d, including projections)

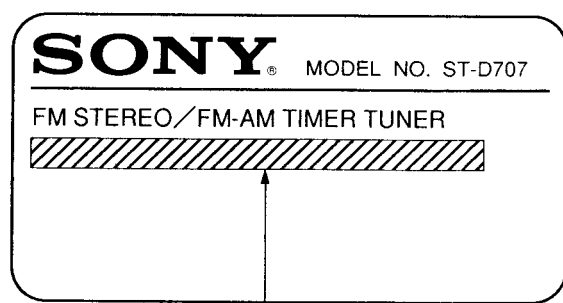
Design and specifications are subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

MODEL IDENTIFICATION

— Model Number Portion —



AEP, East European model : AC : 220—230V ~ 50/60Hz

UK model : AC : 240V ~ 50/60Hz

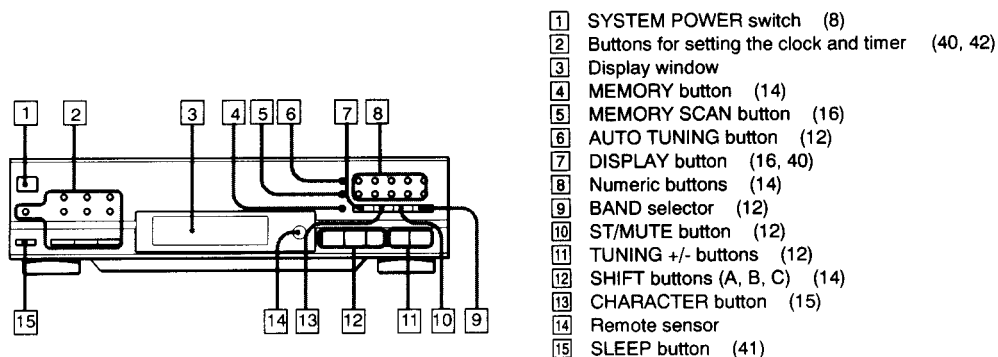


FM STEREO/FM-AM TIMER TUNER
SONY®

SECTION 1 GENERAL



This section is extracted
from instruction manual.

Location of Controls



71

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

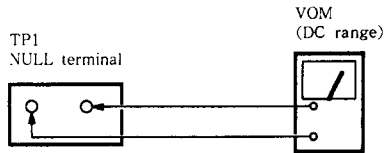
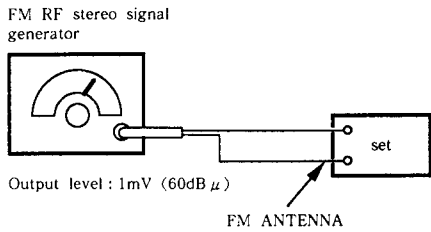
SECTION 2
ELECTRICAL ADJUSTMENTS

FM SECTION

SSG	Carrier frequency	98MHz
	Modulation	MONO : 1kHz, 40kHz deviation
		STEREO : Audio 1kHz, 16.25kHz deviation Pilot 19kHz, 7.5kHz deviation Sub-carrier 38kHz, 16.25kHz deviation

• FM Discriminator Alignment (NULL check)

Setting :

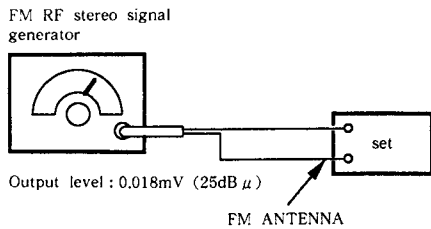


- Procedure :
1. Tune the set to 98MHz.
 2. Adjust T21 for 0V reading on the VOM.

Note : FM tuning level adjustment should be made after FM discriminator alignment.

• FM Tuning Level Adjustment

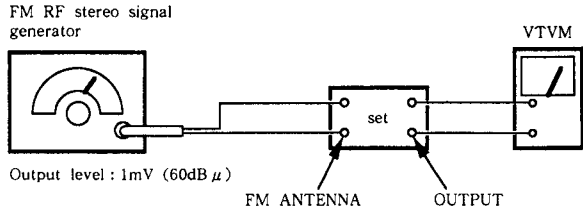
Setting :



- Procedure :
1. Tune the set to 98MHz.
 2. Adjust RV24 so that the TUNED LED goes on.

• FM Stereo Separation Adjustment

Setting :



- Procedure :
- Tune the set to 98MHz

FM stereo Signal generator Output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ _{Adjust RV21 for minimum reading.}
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ _{Adjust RV21 for minimum reading.}

L-CH Stereo separation : Ⓐ - Ⓑ<sub>Adjust RV21 for
minimum reading.</sub>

R-CH Stereo separation : Ⓒ - Ⓓ<sub>Adjust RV21 for
minimum reading.</sub>

The separations of both channels should be equal.

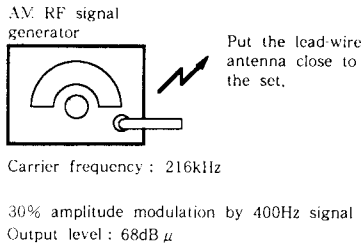
AM SECTION

• AM Tuning Level Adjustment

Setting :

BAND selector : LW

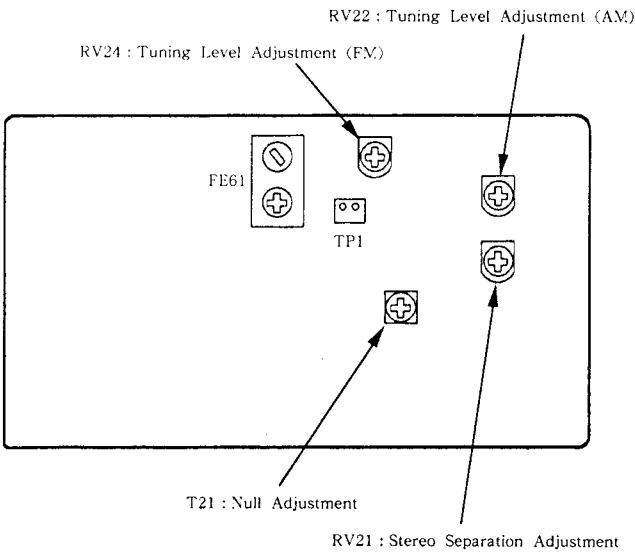
Procedure :



1. Tune the set to 216kHz
2. Adjust the RV22 so that the TUNED LED goes on.

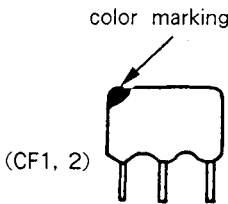
Parts Arrangement Diagram for Adjustments

- tuner board -



Note on Ceramic Filter (CF1, 2) Replacement.

This set employs three ceramic filters (CF1, 2) which should have the same color marking to identify their center frequency. Therefore FM IF offset adjustment by D708, D709 mounted is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.



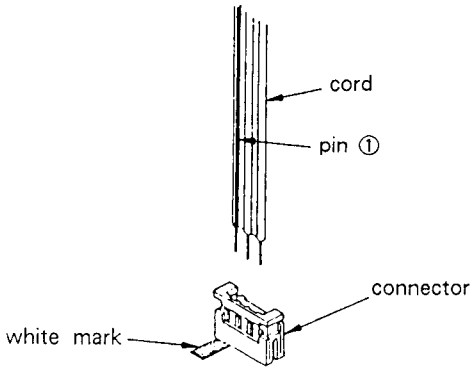
○ : Mounted
× : not Mounted

Ceramic filter		Mount		FM intermediate frequency (MHz)
Color mark	Center frequency (MHz)	*A D708	*B D709	
White	10,750	×	○	10,750
Red	10,700	○	○	10,700
Black	10,650	○	×	10,650

FM intermediate frequency is determined by the three types as shown above. Ceramic filters of same center frequency, i. e., of same color coding should be used for CF1 and CF2. When replacing the ceramic filters, perform the FM Discriminator Adjustment.

[Note on Inserting the Cord to the Connector on Tuner Board]

- Insert the cord to the connector fitting Pin ① of the cord in accordance with the white mark on the board at the connector as shown in the figure.



SECTION 3
DIAGRAMS

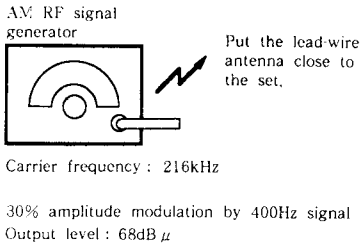
AM SECTION

• AM Tuning Level Adjustment

Setting :

BAND selector : LW

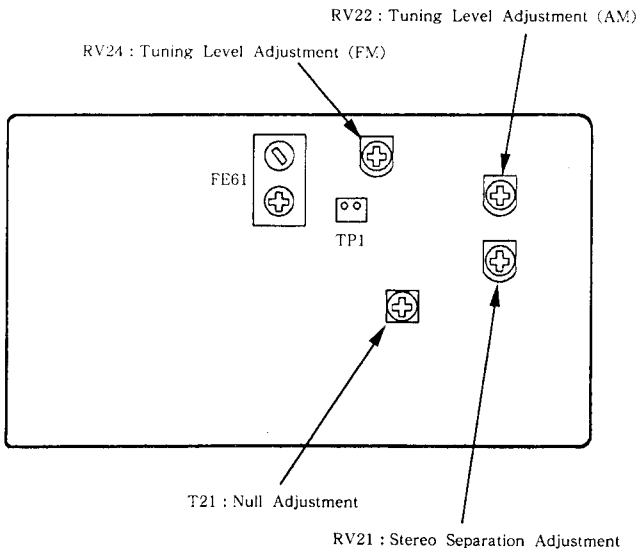
Procedure :



- 1. Tune the set to 216kHz
- 2. Adjust the RV22 so that the TUNED LED goes on.

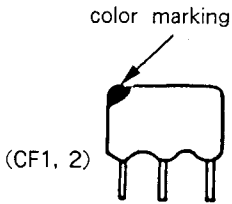
Parts Arrangement Diagram for Adjustments

— tuner board —



Note on Ceramic Filter (CF1, 2) Replacement.

This set employs three ceramic filters (CF1, 2) which should have the same color marking to identify their center frequency. Therefore FM IF offset adjustment by D708, D709 mounted is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.



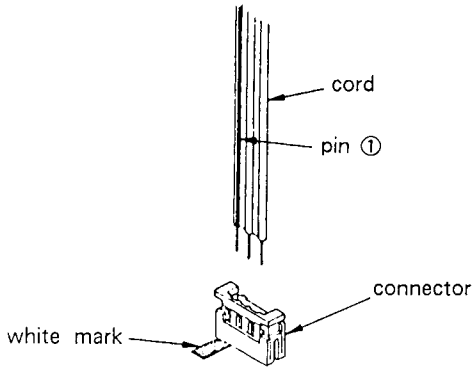
○ : Mounted
× : not Mounted

Ceramic filter		Mount		FM intermediate frequency (MHz)
Color mark	Center frequency (MHz)	*A D708	*B D709	
White	10,750	×	○	10,750
Red	10,700	○	○	10,700
Black	10,650	○	×	10,650

FM intermediate frequency is determined by the three types as shown above. Ceramic filters of same center frequency, i. e., of same color coding should be used for CF1 and CF2. When replacing the ceramic filters, perform the FM Discriminator Adjustment.

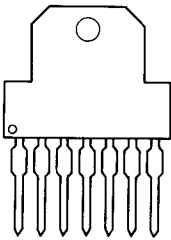
[Note on Inserting the Cord to the Connector on Tuner Board]

- Insert the cord to the connector fitting Pin ① of the cord in accordance with the white mark on the board at the connector as shown in the figure.

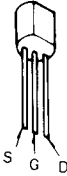


3-1. SEMICONDUCTOR LEAD LAYOUTS

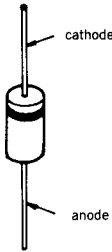
LA5667



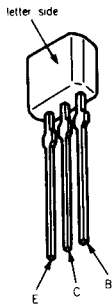
2SK246-GR3



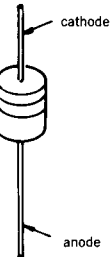
1N4148M
10E2N



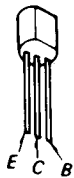
2SA1175-HFE
2SC2785-HFE



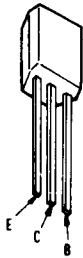
HZS30-2L
UZP-5.6B



2SB1116A-L



2SC2603-EF
2SC2669-OY
2SC3113-AB
DTA114ES
DTC114ES
DTC124ES



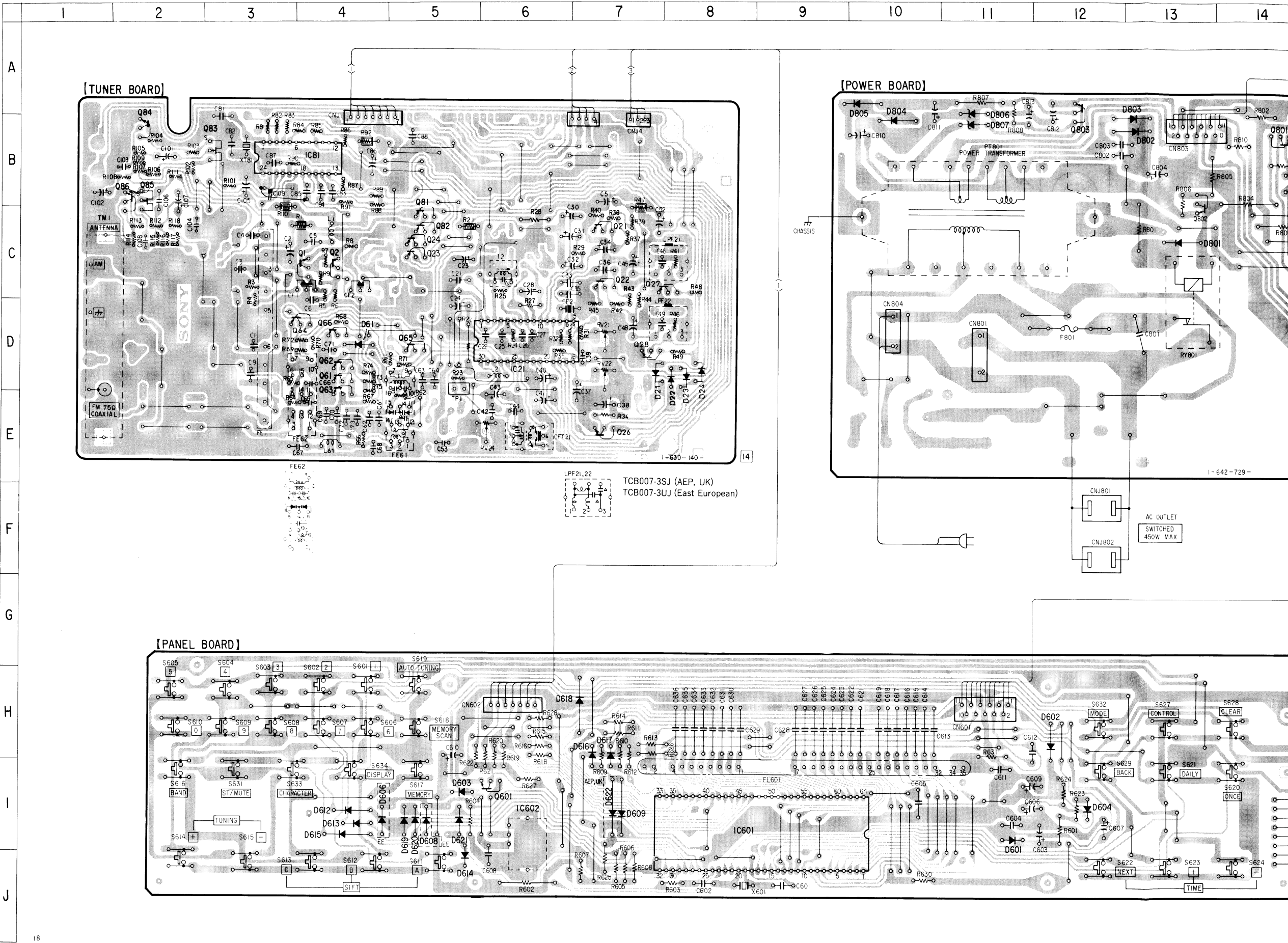
3-2. PRINTED WIRING BOARDS

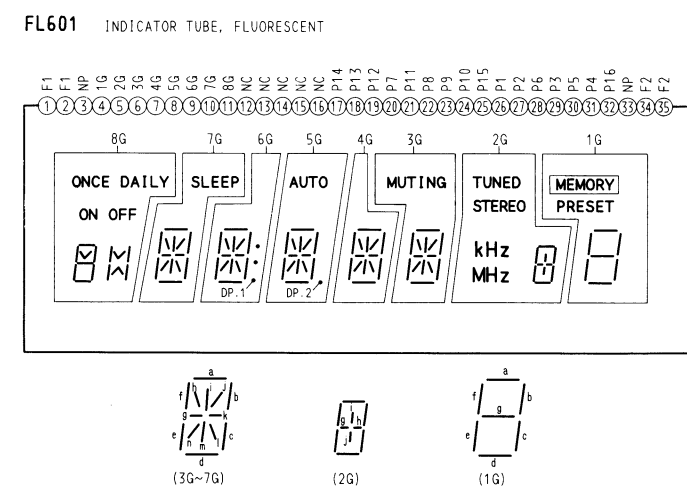
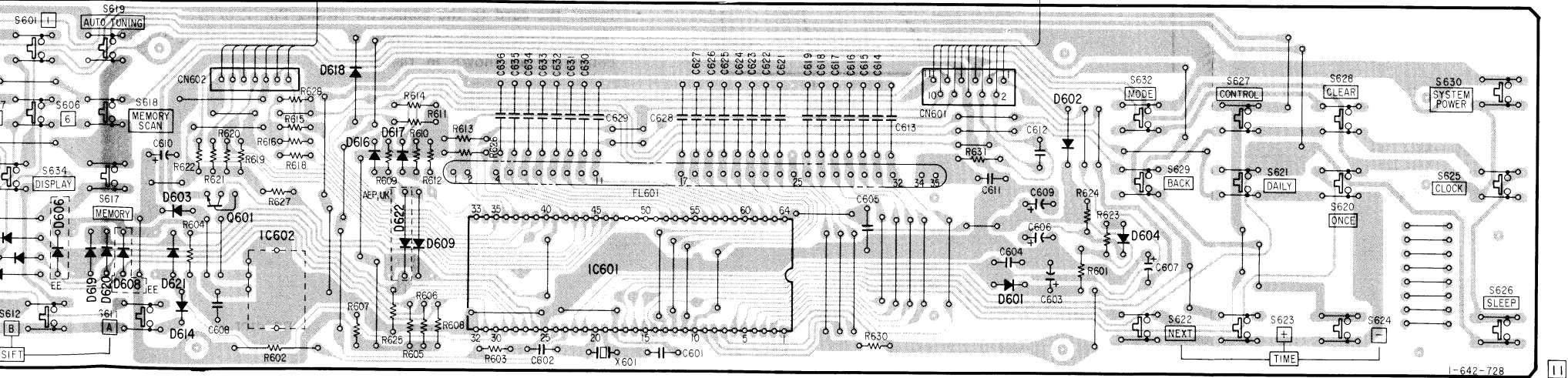
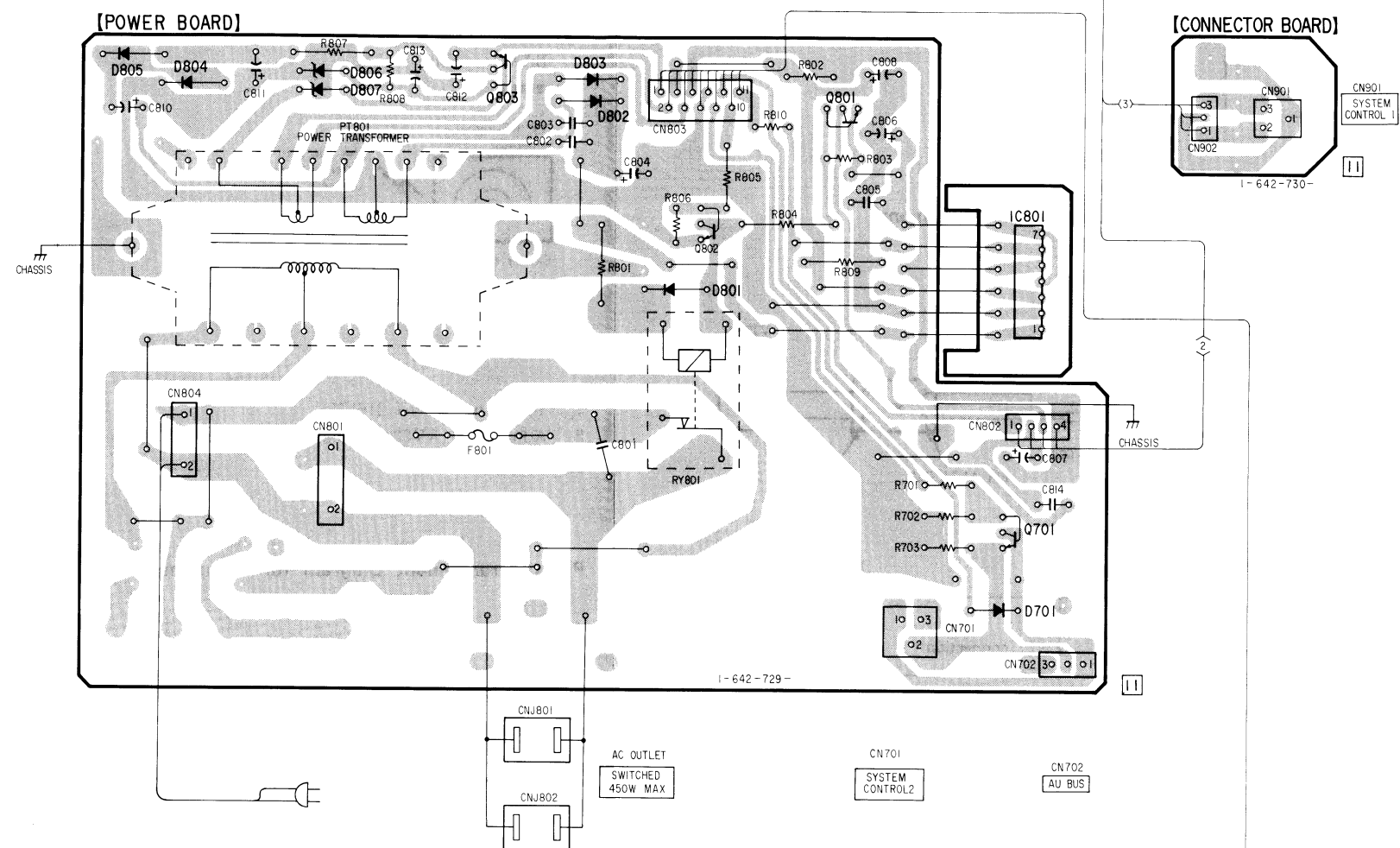
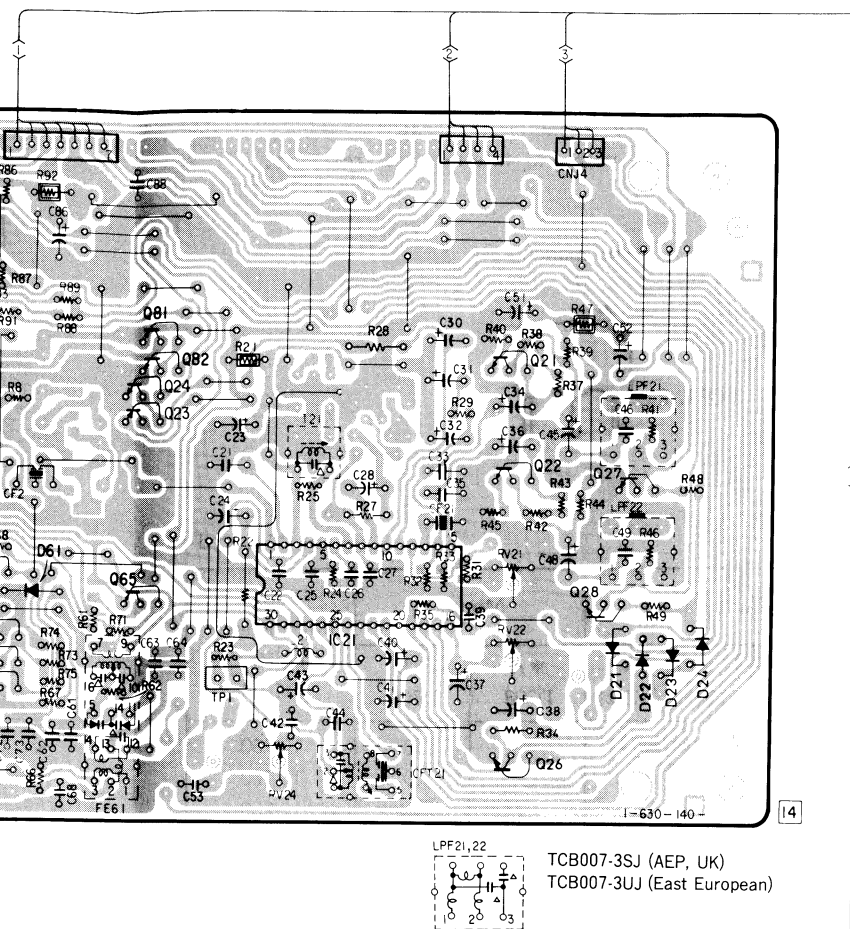
● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D21	D-7	Q1	C-4
D22	D-8	Q2	C-4
D23	D-8	Q21	C-7
D24	D-8	Q22	C-7
D61	D-4	Q23	C-5
D601	I-11	Q24	C-5
D602	H-12	Q26	E-7
D603	I-5	Q27	C-7
D604	I-12	Q28	D-7
D606	I-5	Q61	D-4
D608	I-5	Q62	D-4
D609	I-7	Q63	D-4
D612	I-4	Q64	D-4
D613	I-4	Q65	D-5
D614	J-5	Q66	D-4
D615	I-4	Q81	B-5
D616	H-7	Q82	C-5
D617	H-7	Q83	B-3
D618	H-7	Q84	B-2
D619	I-5	Q85	B-2
D620	I-5	Q86	B-2
D621	I-5	Q601	I-6
D622	I-7	Q701	D-15
D701	E-15	Q801	B-14
D801	C-13	Q802	B-13
D802	B-13	Q803	A-12
D803	A-13		
D804	A-10		
D805	A-10		
D806	A-11		
D807	B-11		
IC21	D-6		
IC81	B-3		
IC601	I-8		
IC602	I-6		
IC801	C-15		

Note:

- — : parts extracted from the component side.
- ■ : parts mounted on the conductor side.





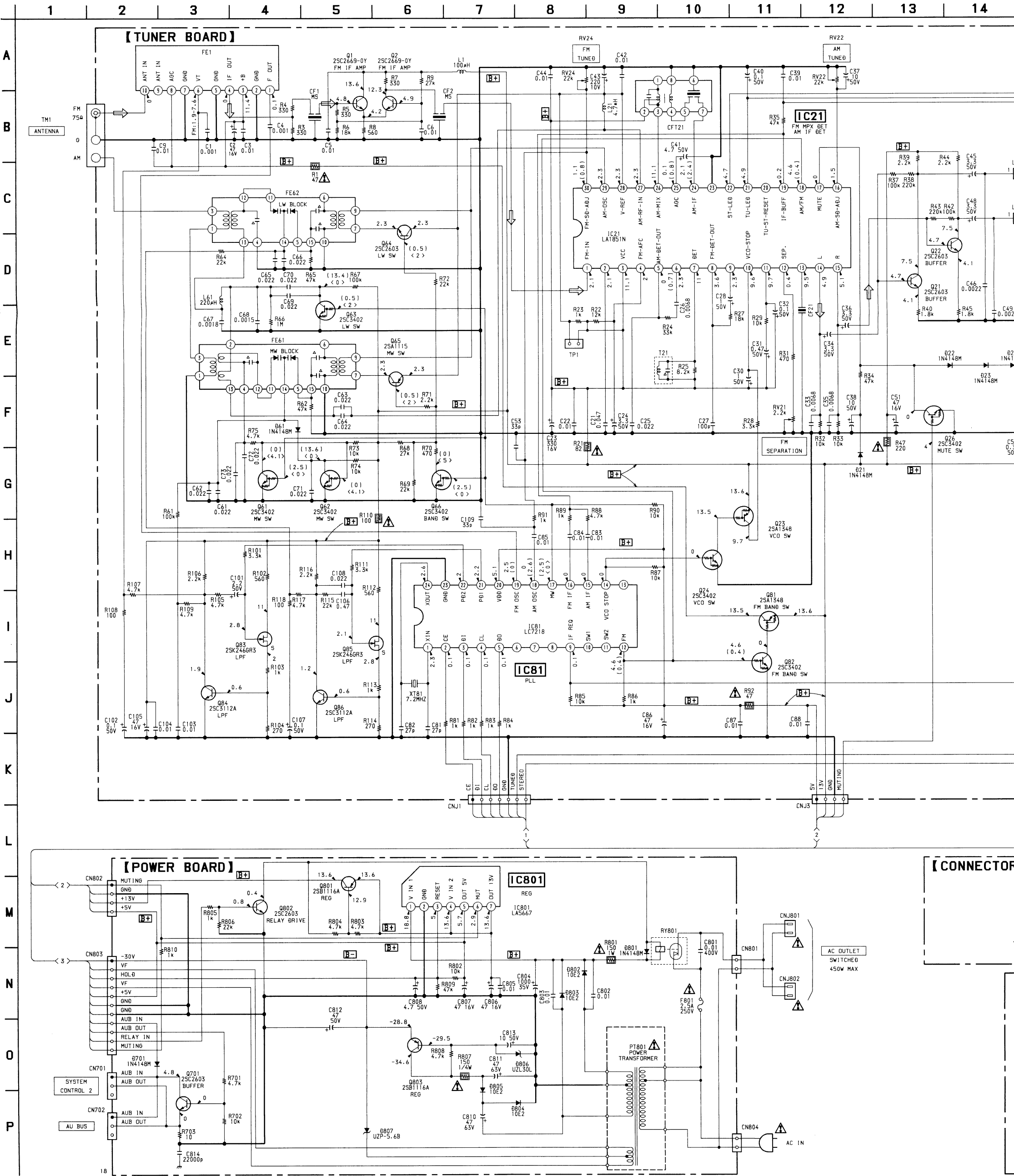
3-3. SCHEMATIC DIAGRAMS

Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- \triangle : internal component.
- \square : nonflammable resistor.

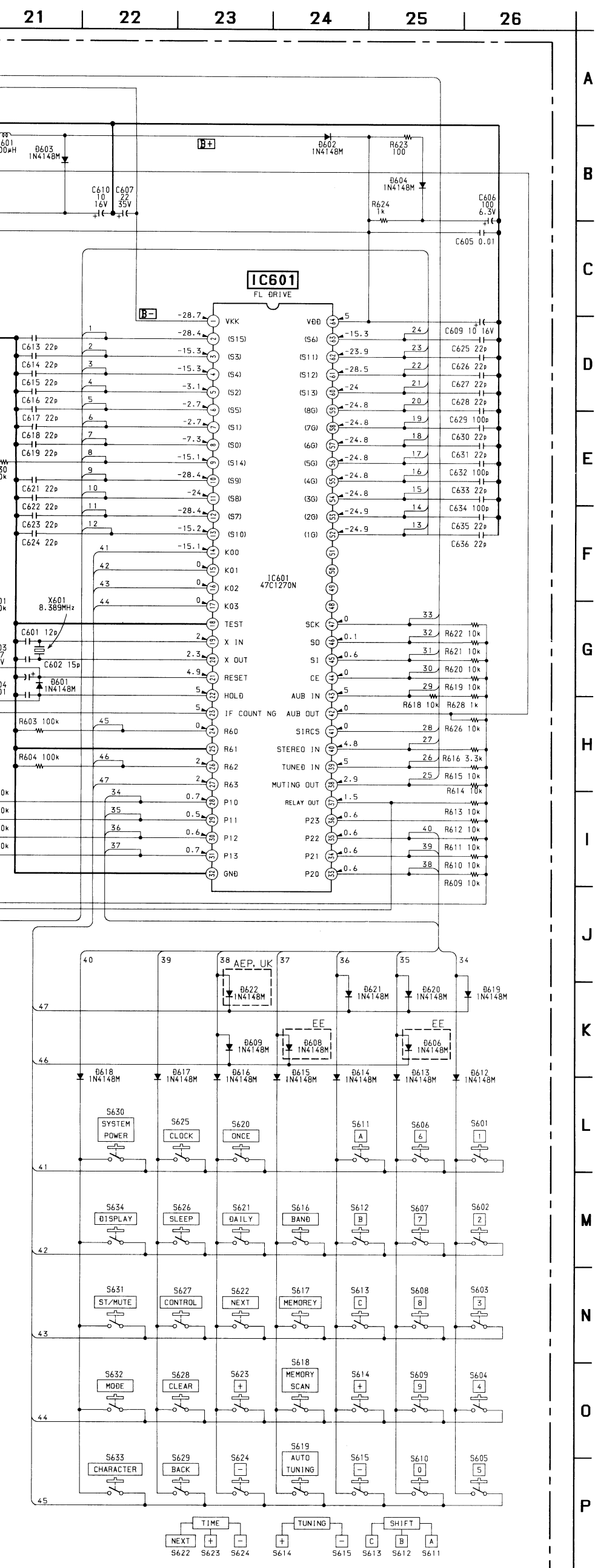
Note: The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

- \square : B+ Line
- \square : B- Line
- \square : adjustment for repair.
no mark: FM < > : LW
() : MW
- Voltages are taken with a VOM (Input 1)
Voltage variations may be noted due to
tolerances.
- Signal path.
 \Rightarrow : FM



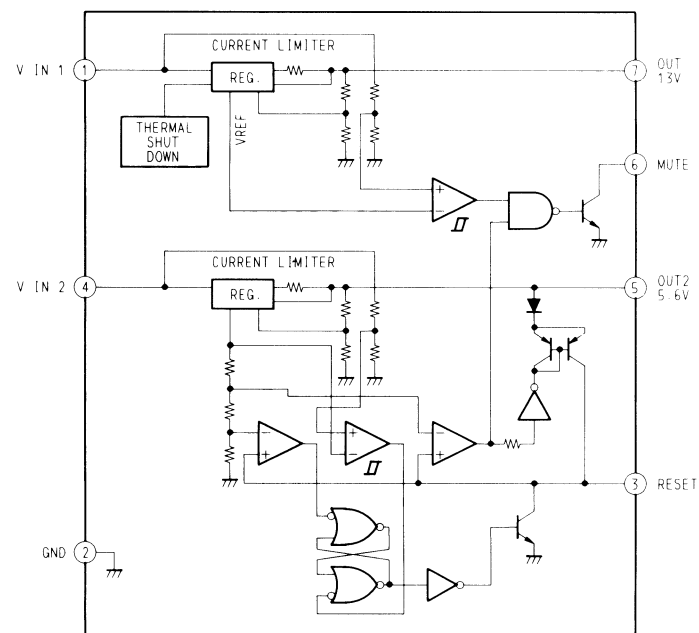
13	14	15	16	17	18	19	20	21	22	23	24	25	26
----	----	----	----	----	----	----	----	----	----	----	----	----	----



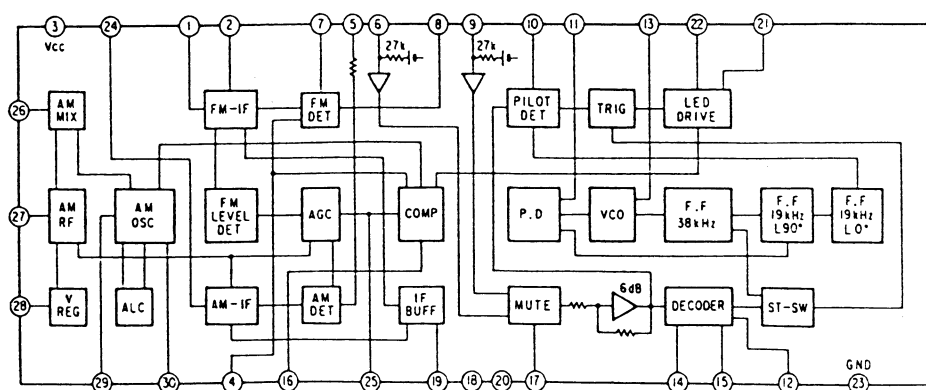


● IC Block Diagrams

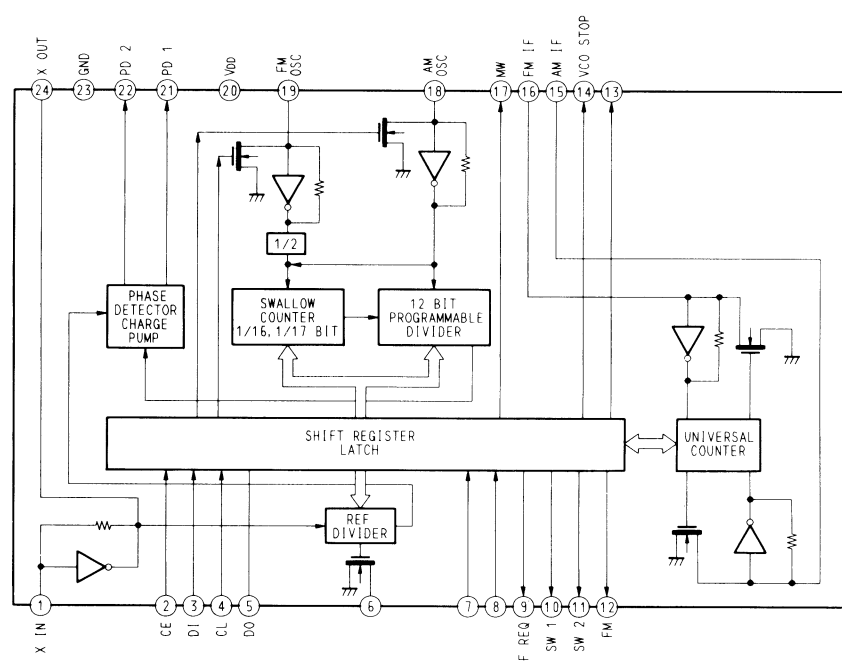
IC801 LA5667



IC21 LA1851N



IC81 LC7218



EXPLODED VIEWS

- 14 -

Reference board name.
Identified by mark
number

PANEL POWER CONNECTOR

Ref. No.	Part No.	Description	Remark
* CN702	1-565-561-11	PIN, CONNECTOR 3P	
CN801	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P	
* CN802	1-568-308-11	SOCKET, CONNECTOR 4P	
* CN803	1-568-830-11	SOCKET, CONNECTOR 11P	
* CN804	1-564-321-00	PIN, CONNECTOR 2P	
* CN901	1-569-625-41	SOCKET, CONNECTOR 3P	
CN902	1-568-269-11	SOCKET, CONNECTOR 3P	
< DIODE >			
D601	8-719-987-63	DIODE 1N4148M	
D602	8-719-987-63	DIODE 1N4148M	
D603	8-719-987-63	DIODE 1N4148M	
D604	8-719-987-63	DIODE 1N4148M	
D606	8-719-987-63	DIODE 1N4148M (EE)	
D608	8-719-987-63	DIODE 1N4148M (EE)	
D609	8-719-987-63	DIODE 1N4148M	
D612	8-719-987-63	DIODE 1N4148M	
D613	8-719-987-63	DIODE 1N4148M	
D614	8-719-987-63	DIODE 1N4148M	
D615	8-719-987-63	DIODE 1N4148M	
D616	8-719-987-63	DIODE 1N4148M	
D617	8-719-987-63	DIODE 1N4148M	
D618	8-719-987-63	DIODE 1N4148M	
D619	8-719-987-63	DIODE 1N4148M	
D620	8-719-987-63	DIODE 1N4148M	
D621	8-719-987-63	DIODE 1N4148M	
D622	8-719-987-63	DIODE 1N4148M (AEP, UK)	
D701	8-719-987-63	DIODE 1N4148M	
D801	8-719-987-63	DIODE 1N4148M	
D802	8-719-200-77	DIODE 10E2N	
D803	8-719-200-77	DIODE 10E2N	
D804	8-719-200-77	DIODE 10E2N	
D805	8-719-200-77	DIODE 10E2N	
D806	8-719-934-22	DIODE HZS30-2L	
D807	8-719-014-66	DIODE UZP-5.6B	
< FUSE >			
△ F801	1-532-286-00	FUSE, TIME-LAG (2.5A/250V)	
< FUSE HOLDER >			
* FH801	1-533-213-31	HOLDER, FUSE	
* FH802	1-533-213-31	HOLDER, FUSE	
< FLUORESCENT INDICATOR >			
FL601	1-519-728-11	INDICATOR TUBE, FLUORESCENT	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
< IC >			
IC601	8-759-053-98	IC TMP47C1270AN-H204	
IC602	8-741-100-48	IC SBX1610-59	
IC801	8-759-820-09	IC LA5667	
< TRANSFORMER >			
PT801	1-449-979-11	TRANSFORMER, POWER	
< TRANSISTOR >			
Q601	8-729-900-36	TRANSISTOR DTC124ES	
Q701	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q801	8-729-140-04	TRANSISTOR 2SB1116A-L	
Q802	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q803	8-729-140-04	TRANSISTOR 2SB1116A-L	
< RESISTOR >			
R601	1-249-441-11	CARBON 100K 5% 1/4W	
R602	1-249-429-11	CARBON 10K 5% 1/4W	
R603	1-249-441-11	CARBON 100K 5% 1/4W	
R604	1-249-441-11	CARBON 100K 5% 1/4W	
R605	1-249-429-11	CARBON 10K 5% 1/4W	
R606	1-249-429-11	CARBON 10K 5% 1/4W	
R607	1-249-429-11	CARBON 10K 5% 1/4W	
R608	1-249-429-11	CARBON 10K 5% 1/4W	
R609	1-249-429-11	CARBON 10K 5% 1/4W	
R610	1-249-429-11	CARBON 10K 5% 1/4W	
R611	1-249-429-11	CARBON 10K 5% 1/4W	
R612	1-249-429-11	CARBON 10K 5% 1/4W	
R613	1-249-425-11	CARBON 4.7K 5% 1/4W	
R614	1-249-429-11	CARBON 10K 5% 1/4W	
R615	1-249-429-11	CARBON 10K 5% 1/4W	
R616	1-249-423-11	CARBON 3.3K 5% 1/4W	
R618	1-249-417-11	CARBON 1K 5% 1/4W	
R619	1-249-429-11	CARBON 10K 5% 1/4W	
R620	1-249-429-11	CARBON 10K 5% 1/4W	
R621	1-249-429-11	CARBON 10K 5% 1/4W	
R622	1-249-429-11	CARBON 10K 5% 1/4W	
R623	1-249-405-11	CARBON 100 5% 1/4W	
R624	1-249-417-11	CARBON 1K 5% 1/4W	
R625	1-249-441-11	CARBON 100K 5% 1/4W	
R626	1-249-429-11	CARBON 10K 5% 1/4W	
R627	1-249-429-11	CARBON 10K 5% 1/4W	
R628	1-249-417-11	CARBON 1K 5% 1/4W	
R629	1-249-417-11	CARBON 1K 5% 1/4W	
R630	1-249-441-11	CARBON 100K 5% 1/4W	
R631	1-249-421-11	CARBON 2.2 5% 1/4W	
R701	1-249-425-11	CARBON 4.7K 5% 1/4W	
R702	1-249-429-11	CARBON 10K 5% 1/4W	
R703	1-249-393-11	CARBON 10 5% 1/4W	

PANEL POWER CONNECTOR

Ref. No.	Part No.	Description	Remark
△ R801	1-215-864-00	METAL OXIDE 150 5% 1W F	
R802	1-249-429-11	CARBON 10K 5% 1/4W	
R803	1-249-425-11	CARBON 4.7K 5% 1/4W	
R804	1-249-425-11	CARBON 4.7K 5% 1/4W	
R805	1-249-417-11	CARBON 1K 5% 1/4W	
R806	1-249-433-11	CARBON 22K 5% 1/4W	
△ R807	1-247-702-11	CARBON 150 5% 1/4W F	
R808	1-249-425-11	CARBON 4.7K 5% 1/4W	
R809	1-249-437-11	CARBON 47K 5% 1/4W	
R810	1-249-417-11	CARBON 1K 5% 1/4W	
< RELAY >			
RY801	1-515-617-11	RELAY	
< SWITCH >			
S601	1-554-303-21	SWITCH, TACTILE (1)	
S602	1-554-303-21	SWITCH, TACTILE (2)	
S603	1-554-303-21	SWITCH, TACTILE (3)	
S604	1-554-303-21	SWITCH, TACTILE (4)	
S605	1-554-303-21	SWITCH, TACTILE (5)	
S606	1-554-303-21	SWITCH, TACTILE (6)	
S607	1-554-303-21	SWITCH, TACTILE (7)	
S608	1-554-303-21	SWITCH, TACTILE (8)	
S609	1-554-303-21	SWITCH, TACTILE (9)	
S610	1-554-303-21	SWITCH, TACTILE (0)	
S611	1-554-303-21	SWITCH, TACTILE (SHIFT A)	
S612	1-554-303-21	SWITCH, TACTILE (SHIFT B)	
S613	1-554-303-21	SWITCH, TACTILE (SHIFT C)	
S614	1-554-303-21	SWITCH, TACTILE (TUNING +)	
S615	1-554-303-21	SWITCH, TACTILE (TUNING -)	
S616	1-554-303-21	SWITCH, TACTILE (BAND)	
S617	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S618	1-554-303-21	SWITCH, TACTILE (MEMORY SCAN)	
S619	1-554-303-21	SWITCH, TACTILE (AUTO TUNING)	
S620	1-554-303-21	SWITCH, TACTILE (ONCE)	
S621	1-554-303-21	SWITCH, TACTILE (DAILY)	
S622	1-554-303-21	SWITCH, TACTILE (TIME NEXT)	
S623	1-554-303-21	SWITCH, TACTILE (TIME +)	
S624	1-554-303-21	SWITCH, TACTILE (TIME -)	
S625	1-554-303-21	SWITCH, TACTILE (CLOCK)	
S626	1-554-303-21	SWITCH, TACTILE (SLEEP)	
S627	1-554-303-21	SWITCH, TACTILE (CONTROL)	
S628	1-554-303-21	SWITCH, TACTILE (CLEAR)	
S629	1-554-303-21	SWITCH, TACTILE (BACK)	
S630	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	
S631	1-554-303-21	SWITCH, TACTILE (ST/MUTE)	
S632	1-554-303-21	SWITCH, TACTILE (MODE)	
S633	1-554-303-21	SWITCH, TACTILE (CHARACTER)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
S634	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
< CRYSTAL >			
X601	1-579-564-11	VIBRATOR, CRYSTAL (8.389MHz)	

*	A-4347-290-A	TUNER BOARD, COMPLETE (EE)	
*	A-4347-288-A	TUNER BOARD, COMPLETE (AEP, UK)	

	1-589-204-11	TUNER BOARD (AEP, EE, UK)	
*	4-924-988-11	PLATE (ST), GROUND	
< CAPACITOR >			
C1	1-162-294-31	CERAMIC 1000PF 20% 25V	
C2	1-124-477-11	ELECT 47uF 20% 25V	
C3	1-163-059-00	CERAMIC CHIP 0.01uF 20% 16V	
C4	1-162-294-31	CERAMIC 1000PF 20% 25V	
C5	1-163-059-00	CERAMIC CHIP 0.01uF 20% 16V	
C6	1-163-059-00	CERAMIC CHIP 0.01uF 20% 16V	
C9	1-163-059-00	CERAMIC CHIP 0.01uF 20% 16V	
C21	1-101-006-00	CERAMIC 0.047uF 50V	
C22	1-163-059-00	CERAMIC CHIP 0.01uF 20% 16V	
C23	1-124-119-00	ELECT 330uF 20% 16V	
C24	1-123-382-00	ELECT 3.3uF 20% 100V	
C25	1-163-063-00	CERAMIC CHIP 22000PF 25V	
C26	1-163-019-00	CERAMIC CHIP 6800PF 20% 12V	
C27	1-162-516-11	CERAMIC CHIP 100PF 10% 50V	
C28	1-124-903-11	ELECT 1uF 20% 50V	
C30	1-124-903-11	ELECT 1uF 20% 50V	
C31	1-124-902-00	ELECT 0.47uF 20% 50V	
C32	1-124-463-00	ELECT 0.1uF 20% 50V	
C33	1-130-481-00	MYLAR 0.0068uF 5% 50V	
C34	1-123-382-00	ELECT 3.3uF 20% 100V	
C35	1-130-481-00	MYLAR 0.0068uF 5% 50V	
C36	1-123-382-00	ELECT 3.3uF 20% 100V	
C37	1-124-907-11	ELECT 10uF 20% 50V	
C38	1-124-907-11	ELECT 10uF 20% 50V	
C39	1-163-059-00	CERAMIC CHIP 0.01uF 20% 16V	
C40	1-124-463-00	ELECT 0.1uF 20% 50V	
C41	1-124-927-11	ELECT 4.7uF 20% 100V	
C42	1-163-059-00	CERAMIC CHIP 0.01uF 20% 16V	
C43	1-126-176-11	ELECT 220uF 20% 10V	
C44	1-163-059-00	CERAMIC CHIP 0.01uF 20% 16V	
C45	1-123-382-00	ELECT 3.3uF 20% 100V	
C46	1-161-375-00	CERAMIC 2200PF 20% 25V	
C48	1-123-382-00	ELECT 3.3uF 20% 100V	
C49	1-161-375-00	CERAMIC 2200PF 20% 25V	

TUNER

Ref. No.	Part No.	Description	Remark			
C51	1-124-477-11	ELECT	47uF	20%	25V	
C52	1-124-252-00	ELECT	0.33uF	20%	50V	
C53	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C61	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C62	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C63	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C64	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C65	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C66	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C67	1-102-120-00	CERAMIC	0.0018uF	10%	50V	
C68	1-163-011-11	CERAMIC CHIP	1500PF	20%	25V	
C69	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C70	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C71	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C72	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C73	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C81	1-102-961-00	CERAMIC	27PF	5%	50V	
C82	1-102-961-00	CERAMIC	27PF	5%	50V	
C83	1-163-059-00	CERAMIC CHIP	0.01uF	20%	16V	
C84	1-163-059-00	CERAMIC CHIP	0.01uF	20%	16V	
C85	1-163-059-00	CERAMIC CHIP	0.01uF	20%	16V	
C86	1-124-477-11	ELECT	47uF	20%	25V	
C87	1-163-059-00	CERAMIC CHIP	0.01uF	20%	16V	
C88	1-163-059-00	CERAMIC CHIP	0.01uF	20%	16V	
C101	1-124-925-11	ELECT	2.2uF	20%	100V	
C102	1-124-463-00	ELECT	0.1uF	20%	50V	
C103	1-163-059-00	CERAMIC CHIP	0.01uF	20%	16V	
C104	1-163-059-00	CERAMIC CHIP	0.01uF	20%	16V	
C105	1-124-477-11	ELECT	47uF	20%	25V	
C106	1-136-173-00	FILM	0.47uF	5%	50V	
C107	1-124-463-00	ELECT	0.1uF	20%	50V	
C108	1-163-063-00	CERAMIC CHIP	22000PF		25V	
C109	1-102-963-00	CERAMIC	33PF	5%	50V	
< CERAMIC FILTER >						
CF1	1-567-389-11	FILTER, CERAMIC				
CF2	1-567-389-11	FILTER, CERAMIC				
CF21	1-577-075-11	OSCILLATOR, CERAMIC				
CFT21	1-404-853-11	TRANSFORMER, 1F (CERAMIC FILTER)				
< CONNECTOR >						
* CNJ1	1-568-273-11	SOCKET, CONNECTOR 7P				
* CNJ3	1-568-308-11	SOCKET, CONNECTOR 4P				
CNJ4	1-568-269-11	SOCKET, CONNECTOR 3P				
< DIODE >						
D21	8-719-987-63	DIODE 1N4148M				
D22	8-719-987-63	DIODE 1N4148M				
D23	8-719-987-63	DIODE 1N4148M				

Ref. No.	Part No.	Description	Remark			
D24	8-719-987-63	DIODE 1N4148M				
D61	8-719-987-63	DIODE 1N4148M				
< FRONT END >						
FE1	1-463-862-21	FRONT END, FM (AEP, UK)				
FE1	1-465-560-11	FRONT END (FM 3 GANG) (EE)				
FE61	1-236-462-11	ENCAPSULATED COMPONENT				
FE62	1-236-463-11	ENCAPSULATED COMPONENT				
< IC >						
IC21	8-759-821-45	IC LA1851N				
IC81	8-759-820-91	IC LC7218				
< COIL >						
L1	1-410-645-31	INDUCTOR 100uH				
L21	1-407-500-00	INDUCTOR 4.7mH				
L61	1-410-525-11	INDUCTOR 220uH				
< LOW PASS FILTER >						
LPF21	1-235-164-00	FILTER, LOW PASS				
LPF22	1-235-164-00	FILTER, LOW PASS				
< TRANSISTOR >						
Q1	8-729-230-XX	TRANSISTOR 2SC2669-0Y				
Q2	8-729-230-XX	TRANSISTOR 2SC2669-0Y				
Q21	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q22	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q23	8-729-900-61	TRANSISTOR DTA114ES				
Q24	8-729-900-80	TRANSISTOR DTC114ES				
Q26	8-729-900-80	TRANSISTOR DTC114ES				
Q27	8-729-620-05	TRANSISTOR 2SC2603-EF				
Q28	8-729-620-05	TRANSISTOR 2SC2603-EF				
Q61	8-729-900-80	TRANSISTOR DTC114ES				
Q62	8-729-900-80	TRANSISTOR DTC114ES				
Q63	8-729-900-80	TRANSISTOR DTC114ES				
Q64	8-729-620-05	TRANSISTOR 2SC2603-EF				
Q65	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q66	8-729-900-80	TRANSISTOR DTC114ES				
Q81	8-729-900-61	TRANSISTOR DTA114ES				
Q82	8-729-900-80	TRANSISTOR DTC114ES				
Q83	8-729-202-67	TRANSISTOR 2SK246-GR3				
Q84	8-729-230-93	TRANSISTOR 2SC3113-AB				
Q85	8-729-202-67	TRANSISTOR 2SK246-GR3				
Q86	8-729-230-93	TRANSISTOR 2SC3113-AB				
< RESISTOR >						
<u>A</u> R1	1-249-401-11	CARBON 47 5% 1/4W F				
R3	1-249-329-11	CARBON MELF 330 5% 1/8W				

The components identified by mark A or dotted line with mark A are critical for safety. Replace only with part number specified.

TUNER

Ref. No.	Part No.	Description	Remark		
R4	1-249-329-11	CARBON MELF	330	5%	1/8W
R5	1-249-329-11	CARBON MELF	330	5%	1/8W
R6	1-249-350-11	CARBON MELF	18K	5%	1/8W
R7	1-249-329-11	CARBON MELF	330	5%	1/8W
R8	1-249-332-11	CARBON MELF	560	5%	1/8W
R9	1-249-352-11	CARBON MELF	27K	5%	1/8W
△R21	1-249-404-00	CARBON	82	5%	1/4W F
R22	1-249-430-11	CARBON	12K	5%	1/4W
R23	1-249-335-11	CARBON MELF	1K	5%	1/8W
R24	1-249-353-11	CARBON MELF	33K	5%	1/8W
R25	1-249-346-11	CARBON MELF	8.2K	5%	1/8W
R27	1-249-432-11	CARBON	18K	5%	1/4W
R28	1-249-423-11	CARBON	3.3K	5%	1/4W
R29	1-249-347-11	CARBON MELF	10K	5%	1/8W
R31	1-249-331-11	CARBON MELF	470	5%	1/8W
R32	1-249-347-11	CARBON MELF	10K	5%	1/8W
R33	1-249-347-11	CARBON MELF	10K	5%	1/8W
R34	1-249-425-11	CARBON	4.7K	5%	1/4W
R35	1-249-355-11	CARBON MELF	47K	5%	1/8W
R37	1-249-359-11	CARBON MELF	100K	5%	1/8W
R38	1-249-363-11	CARBON MELF	220K	5%	1/8W
R39	1-249-339-11	CARBON MELF	2.2K	5%	1/8W
R40	1-249-338-11	CARBON MELF	1.8K	5%	1/8W
R41	1-249-344-11	CARBON MELF	5.6K	5%	1/8W
R42	1-249-359-11	CARBON MELF	100K	5%	1/8W
R43	1-249-363-11	CARBON MELF	220K	5%	1/8W
R44	1-249-339-11	CARBON MELF	2.2K	5%	1/8W
R45	1-249-338-11	CARBON MELF	1.8K	5%	1/8W
R46	1-249-344-11	CARBON MELF	5.6K	5%	1/8W
△R47	1-249-409-11	CARBON	220	5%	1/4W F
R48	1-249-359-11	CARBON MELF	100K	5%	1/8W
R49	1-249-359-11	CARBON MELF	100K	5%	1/8W
R61	1-249-359-11	CARBON MELF	100K	5%	1/8W
R62	1-249-355-11	CARBON MELF	47K	5%	1/8W
R64	1-249-351-11	CARBON MELF	22K	5%	1/8W
R65	1-249-355-11	CARBON MELF	47K	5%	1/8W
R66	1-215-493-00	METAL	1M	5%	1/4W
R67	1-249-359-11	CARBON MELF	100K	5%	1/8W
R68	1-249-352-11	CARBON MELF	27K	5%	1/8W
R69	1-249-351-11	CARBON MELF	22K	5%	1/8W
R70	1-249-331-11	CARBON MELF	470	5%	1/8W
R71	1-249-339-11	CARBON MELF	2.2K	5%	1/8W
R72	1-249-351-11	CARBON MELF	22K	5%	1/8W
R73	1-249-347-11	CARBON MELF	10K	5%	1/8W
R74	1-249-347-11	CARBON MELF	10K	5%	1/8W
R75	1-249-343-11	CARBON MELF	4.7K	5%	1/8W
R81	1-249-335-11	CARBON MELF	1K	5%	1/8W
R82	1-249-335-11	CARBON MELF	1K	5%	1/8W

Ref. No.	Part No.	Description	Remark		
R83	1-249-335-11	CARBON MELF	1K	5%	1/8W
R84	1-249-335-11	CARBON MELF	1K	5%	1/8W
R85	1-249-347-11	CARBON MELF	10K	5%	1/8W
R86	1-249-335-11	CARBON MELF	1K	5%	1/8W
R87	1-249-347-11	CARBON MELF	10K	5%	1/8W
R88	1-249-343-11	CARBON MELF	4.7K	5%	1/8W
R89	1-249-335-11	CARBON MELF	1K	5%	1/8W
R90	1-249-343-11	CARBON MELF	4.7K	5%	1/8W
R91	1-249-335-11	CARBON MELF	1K	5%	1/8W
△R92	1-249-401-11	CARBON	47	5%	1/4W F
R101	1-249-341-11	CARBON MELF	3.3K	5%	1/8W
R102	1-249-332-11	CARBON MELF	560	5%	1/8W
R103	1-249-335-11	CARBON MELF	1K	5%	1/8W
R104	1-249-328-11	CARBON MELF	270	5%	1/8W
R105	1-249-343-11	CARBON MELF	4.7K	5%	1/8W
R106	1-249-339-11	CARBON MELF	2.2K	5%	1/8W
R107	1-249-343-11	CARBON MELF	4.7K	5%	1/8W
R108	1-249-323-11	CARBON MELF	100	5%	1/8W
R109	1-249-343-11	CARBON MELF	4.7K	5%	1/8W
△R110	1-249-405-11	CARBON	100	5%	1/4W F
R111	1-249-341-11	CARBON MELF	3.3K	5%	1/8W
R112	1-249-332-11	CARBON MELF	560	5%	1/8W
R113	1-249-335-11	CARBON MELF	1K	5%	1/8W
R114	1-249-328-11	CARBON MELF	270	5%	1/8W
R115	1-249-351-11	CARBON MELF	22K	5%	1/8W
R116	1-249-339-11	CARBON MELF	2.2K	5%	1/8W
R117	1-249-343-11	CARBON MELF	4.7K	5%	1/8W
R118	1-249-323-11	CARBON MELF	100	5%	1/8W

< VARIABLE RESISTOR >

RV21	1-238-013-11	RES. ADJ. CARBON 2.2K
RV22	1-238-017-11	RES. ADJ. CARBON 22K
RV24	1-238-017-11	RES. ADJ. CARBON 22K

< TRANSFORMER >

T21	1-404-807-11	TRANSFORMER, DISCRIMINATOR
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< TERMINAL BOARD >

* TM1	1-537-138-31	TERMINAL BOARD (ANT)
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< TEST POINT >

* TP1	1-560-060-00	PIN, CONNECTOR 2P
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< CRYSTAL >

XT81	1-577-126-11	VIBRATOR, CRYSTAL (7.2MHz)
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The components identified by
mark △ or dotted line with mark
△ are critical for safety.
Replace only with part number
specified.

Ref. No.	Part No.	Description	Remark
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MISCELLANEOUS

△10	1-575-651-11	CORD, POWER (AEP, EE)	
△10	1-575-652-11	CORD, POWER (UK)	
2	1-575-666-11	WIRE, FLAT TYPE (11 CORE)	
△CNJ801	1-526-751-00	OUTLET, AC (UK)	
△CNJ801	1-526-794-11	OUTLET, AC (AEP, EE)	

△CNJ802	1-526-751-00	OUTLET, AC (UK)	
△CNJ802	1-526-794-11	OUTLET, AC (AEP, EE)	

ACCESSORIES & PACKING MATERIALS

	4-920-940-01	SHEET (A), PROTECTION	
*	4-929-563-01	CUSHION	
*	4-952-208-01	INDIVIDUAL CARTON (FOR LBT-D507;AEP)	
*	4-952-209-01	INDIVIDUAL CARTON (FOR LBT-D607;AEP)	

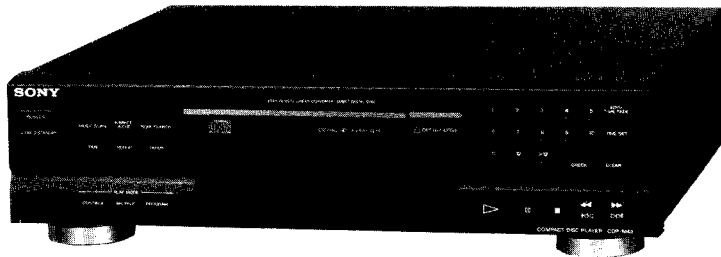
HARDWARE LIST

#1	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S
#2	7-621-773-93	SCREW (PANEL 2.6 TP2)
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#4	7-621-849-00	SCREW (BV/RING)
#5	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S

The components identified by
mark △ or dotted line with mark
△ are critical for safety.
Replace only with part number
specified.

CDP-M43/M54

SERVICE MANUAL



CDP-M43 is the CD player section in
LBT-D507/ D607/ D707,
LBT-A50/A60/A70 series

Photo : CDP-M43

AEP Model
UK Model
E Model
Australian Model
CDP-M43

AEP Model
UK Model
E Model
CDP-M54

Model Name Using Similar Mechanism	CDP-497/597
CD Mechanism Type	CDM-14L-5BD8A
Optical Pick-Up Block Type	BU-5BD8A

SPECIFICATIONS

Compact disc player

Frequency response	2 Hz to 20 kHz ± 0.5 dB
Signal-to-noise ratio	More than 105 dB CDP-M54 More than 100 dB CDP-M43
Dynamic range	More than 98 dB CDP-M54 More than 92 dB CDP-M43
Harmonic distortion	Less than 0.003% CDP-M54 Less than 0.004% CDP-M43
Channel separation	More than 102 dB CDP-M54 More than 95 dB CDP-M43

Outputs

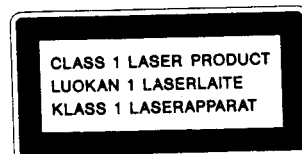
LINE OUT (FIXED)(phono jacks)	Output level 2 V(at 50 kilohms) Load impedance over 10 kilohms
LINE OUT (VARIABLE)(phono jacks) CDP-M54 Output level max. 2 V(at 50 kilohms) Load impedance over 50 kilohms
PHONES (stereo phone jack) CDP-M54 Output level max. 10 mW Load impedance 32 ohms

General

Power requirements	European model: 220 - 230V AC, 50/60Hz UK, Australian model: 240 V AC, 50Hz E model: 110 - 120, 220 - 240V AC, 50/60Hz
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Power consumption	12 W
Dimensions (approx., including projections)	355 \times 95 \times 325 mm(w/h/d) (14 \times 3 $\frac{3}{4}$ \times 12 $\frac{1}{8}$ inches)
Weight (approx.)	3.2 kg(7 lbs 1 oz)
Remote commander	(RM-D597) CDP-M54
Remote control system	Infrared control
Power requirements	3 V DC with two R6 (size AA) batteries
Dimensions (approx., including projections)	40 \times 20 \times 175 mm (w/h/d) (1 $\frac{5}{8}$ \times 1 $\frac{1}{8}$ \times 7 inches)
Weight (approx.)	95 g(4 oz)
Supplied accessories	
Audio cord	(1)(2 Phono plugs-2 phono plugs)
Remote commander	(1) CDP-M54
Sony SUM-3 (NS) batteries	(2) CDP-M54

Design and specifications are subject to change without notice.



This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.





COMPACT DISC PLAYER
SONY[®]

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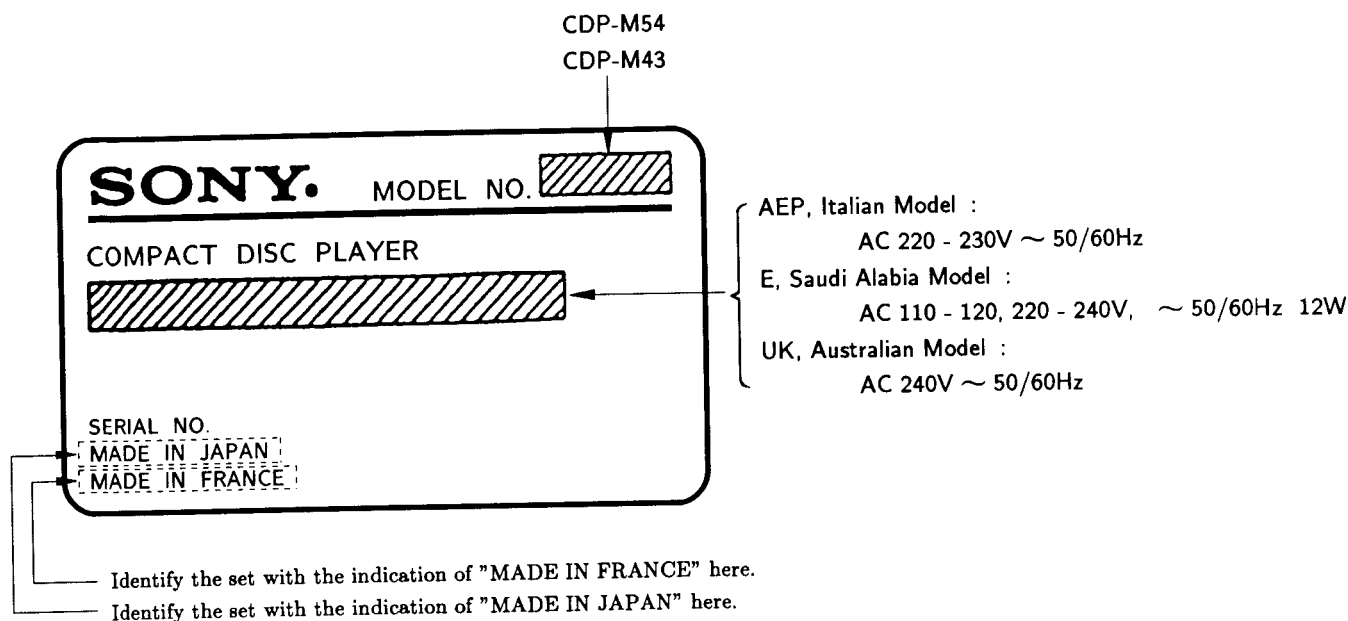
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MODEL IDENTIFICATION

- Specification Label -



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

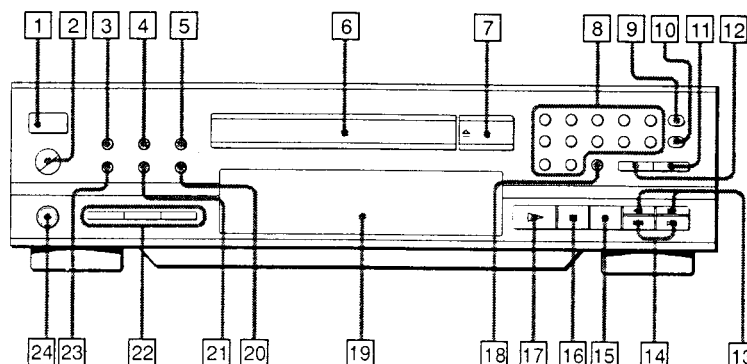
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30cm away from the objective lens.

SECTION 1 GENERAL

This section is extracted from instruction manual.

1-1 IDENTIFYING THE PARTS

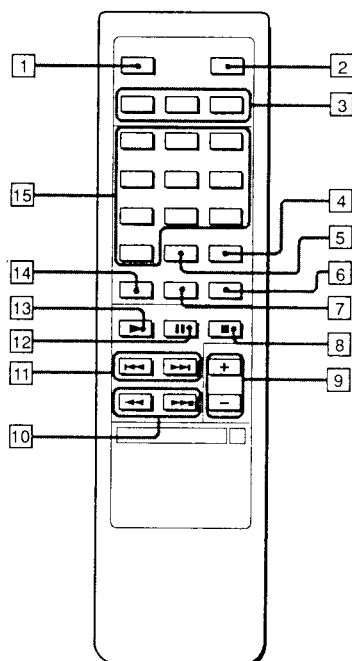
CDP-M54 model



Front Panel

- | | |
|---|----------------------------------|
| 1 POWER switch (20) | 15 ■ (stop) button (22) |
| 2 LINE OUT/PHONE LEVEL control (14) | 16 (pause) button (22) |
| 3 MUSIC SCAN button (40) | 17 ► (play) button (22) |
| 4 A.SPACE/A.CUE button (28, 62) | 18 > 12 (over 12) button (24) |
| 5 PEAK SEARCH button (60) | 19 Display window (20) |
| 6 Disc tray (20) | 20 FADER button (46) |
| 7 ▲ OPEN/CLOSE button (20) | 21 REPEAT button (44) |
| 8 Numeric buttons (24, 38, 48, 52) | 22 Play mode buttons |
| 9 EDIT/TIME FADE button (52, 58) | CONTINUE button (30, 34, 38, 56) |
| 10 TIME SET button (54, 58) | SHUFFLE button (30, 34, 38, 56) |
| 11 CLEAR (program clear) button (36, 42) | PROGRAM button (34, 48) |
| 12 CHECK (program check) button (36) | 23 TIME button (22) |
| 13 ◀◀/▶▶ (manual search) buttons (26, 46) | 24 PHONES jack |
| 14 ◀◀◀/▶▶▶ (AMS*) buttons (24, 48) | |

* AMS is the abbreviation of Automatic Music Sensor.



Remote Commander

..... CDP-M54

- | |
|---|
| 1 A. SPACE/A. CUE button (28, 62) |
| 2 MUSIC SCAN button (40) |
| 3 Play mode buttons |
| CONTINUE button (30, 34, 38, 56) |
| SHUFFLE button (30, 34, 38, 56) |
| PROGRAM button (34, 48) |
| 4 CLEAR (program clear) button (36, 42) |
| 5 > 10 (over 10) button (24) |
| 6 FADER button (46) |
| 7 REPEAT button (44) |
| 8 ■ (stop) button (22) |
| 9 LINE OUT LEVEL buttons (14) |
| 10 ◀◀/▶▶ (manual search) buttons (26, 46) |
| 11 ◀◀◀/▶▶▶ (AMS*) buttons (24, 48) |
| 12 (pause) button (22) |
| 13 ► (play) button (22) |
| 14 TIME button (22) |
| 15 Numeric buttons (24, 38, 48, 52) |

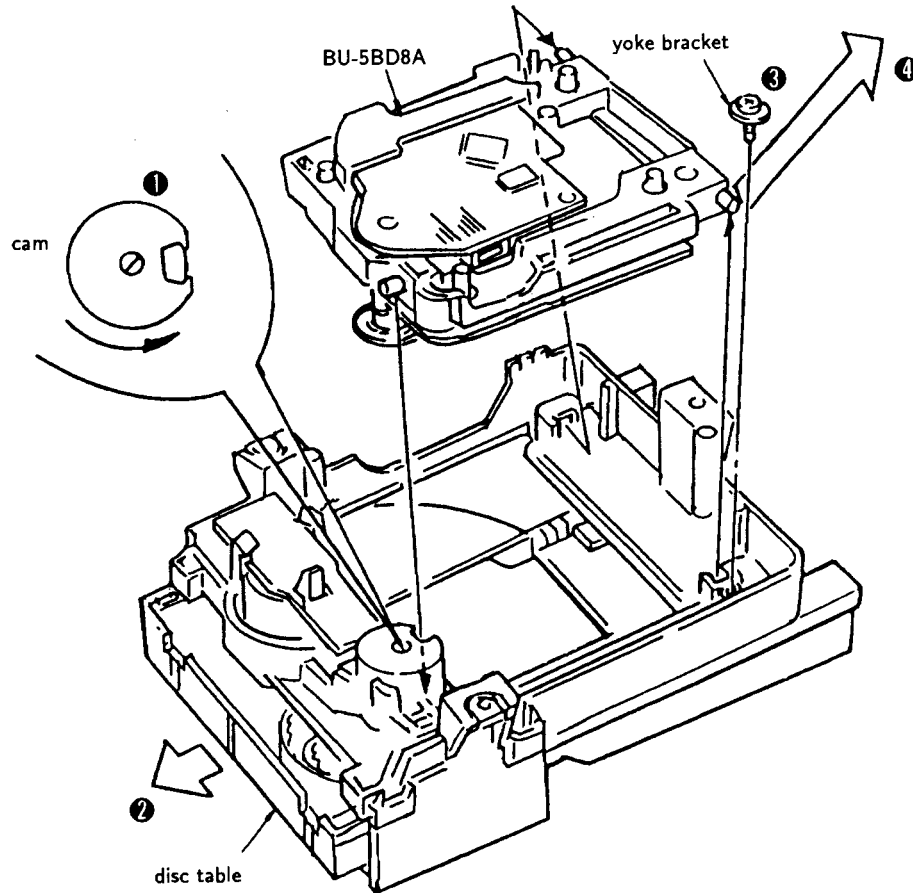
* AMS is the abbreviation of Automatic Music Sensor.

SECTION 2 DISASSEMBLY

Note :

Follow the disassembly procedure in the numerical order given.

- ❶ Turn the cam to the direction of arrow (Counter clock wise) by minus screw driver.
- ❷ Take off the disc table.
- ❸ Remove the yoke bracket.
- ❹ Remove the MD (BU-5BD8A) to the direction of arrow.

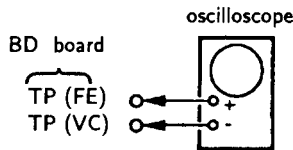


SECTION 3 ELECTRICAL BLOCK CHECKING

Note :

1. CD Block basically constructed to operate with-out adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ im-pedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

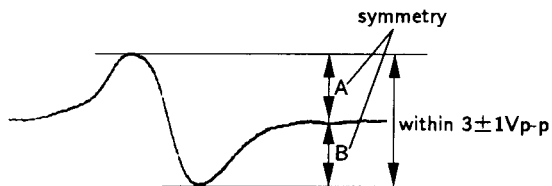
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3\pm 1V_{p-p}$.

S curve waveform

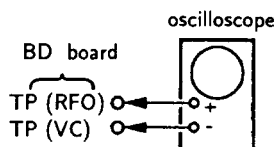


5. After check, remove the lead wire connected in step 2.

Note :

- Try to mesure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



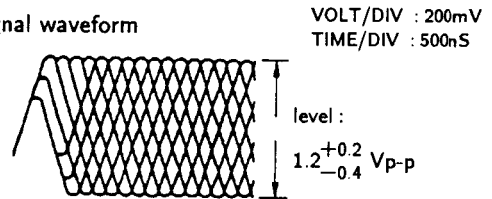
Procedure :

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

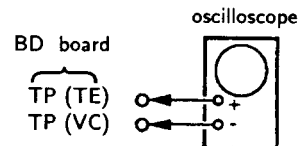
Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform



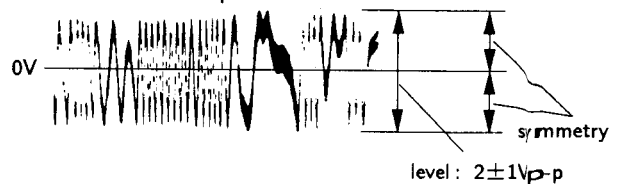
E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TEI) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the osilloscope waveform is sym-metrical on the top and bottom in relation to 0V, and check this level.

Traverse oscilloscope



6. Remove the lead wire connected in step 1.

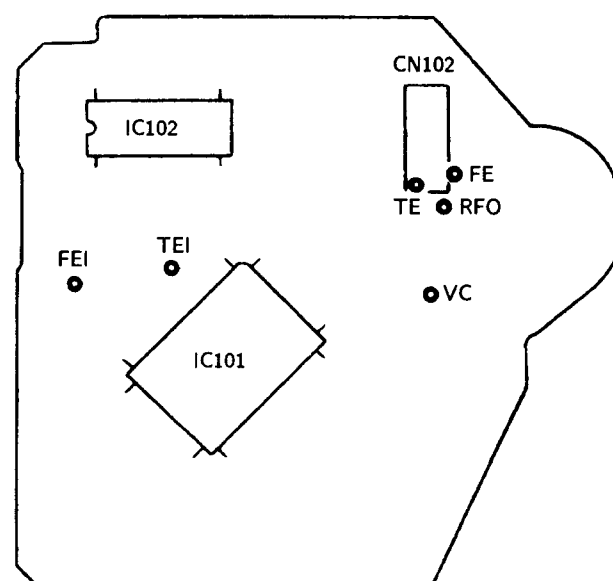
Procedure :

2. Turn Power switch on.

Adjustment Location :

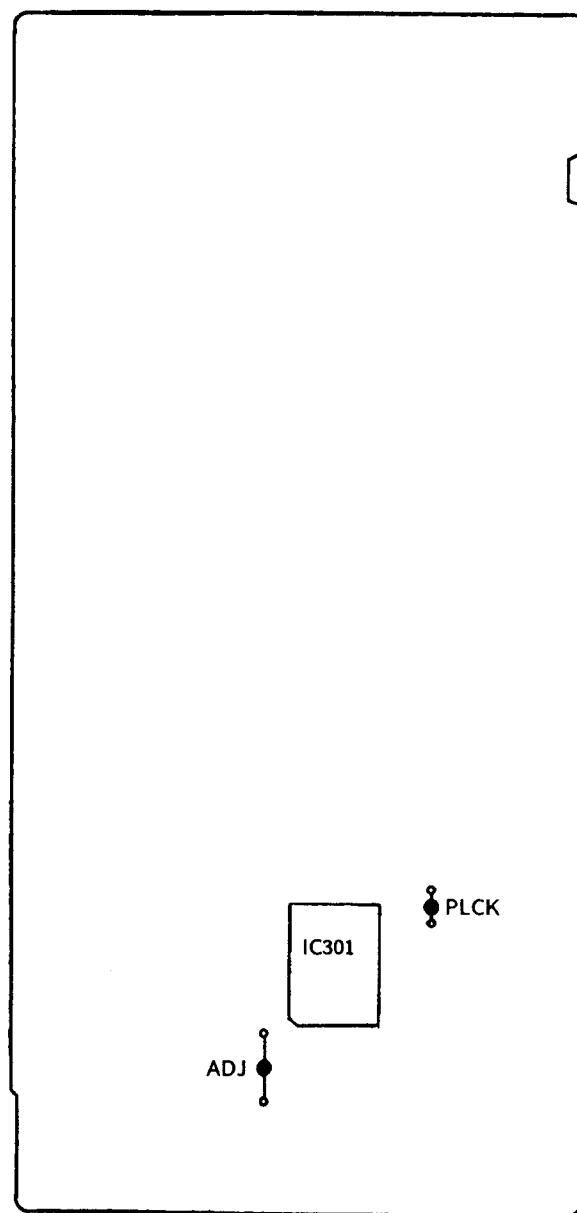
【BD BOARD】

- Solder side -

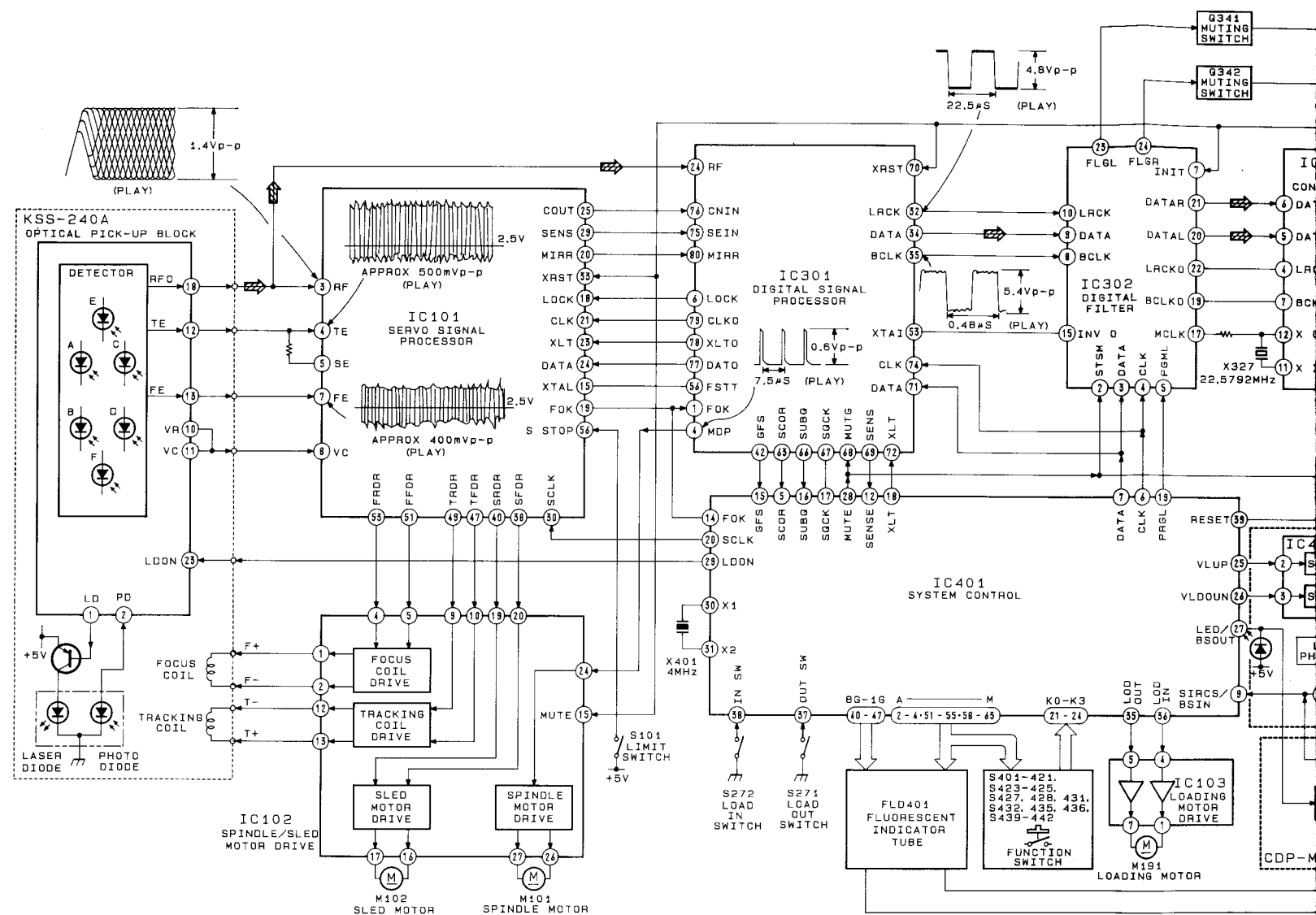


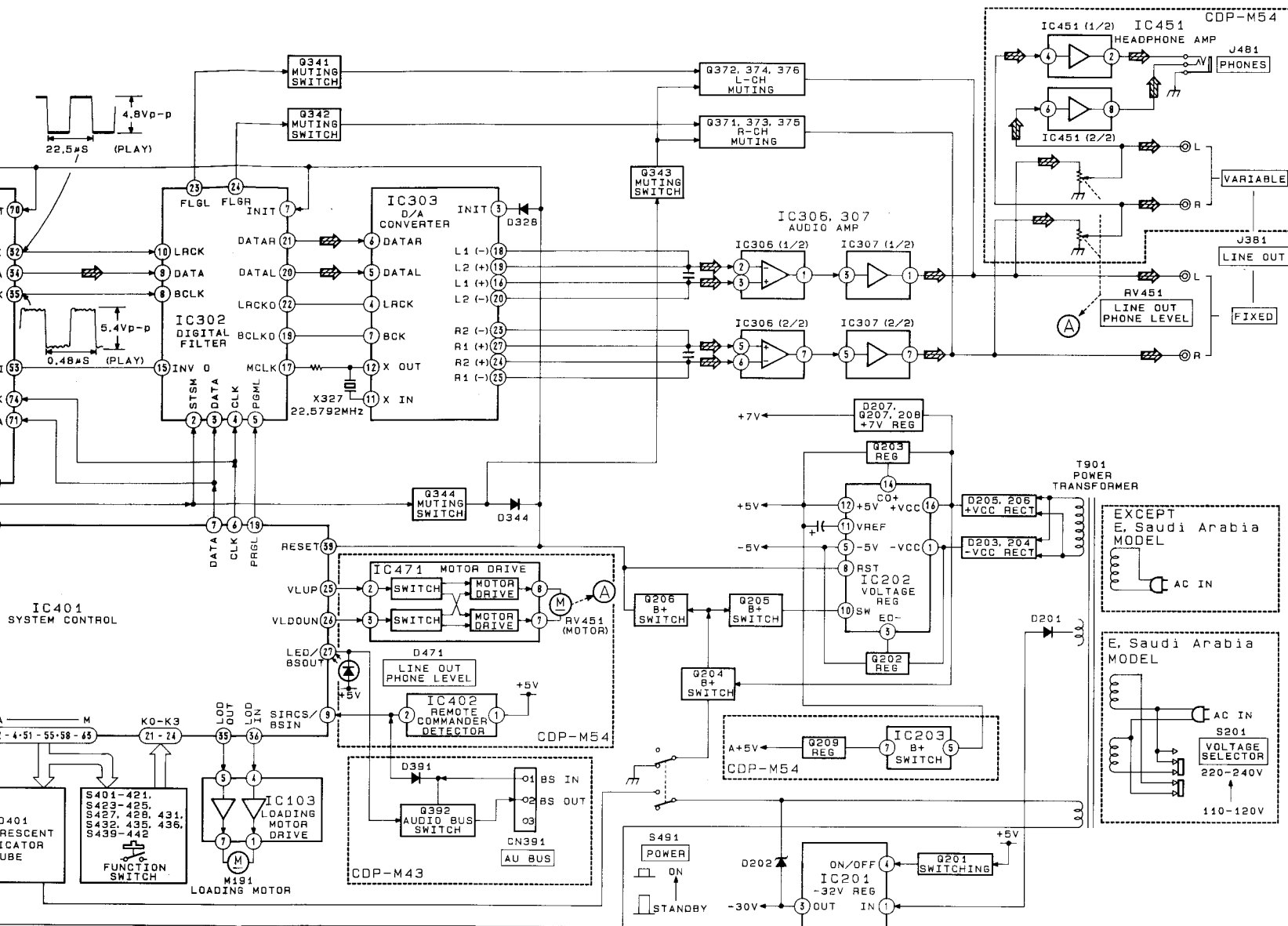
【MAIN BOARD】

- Component side -

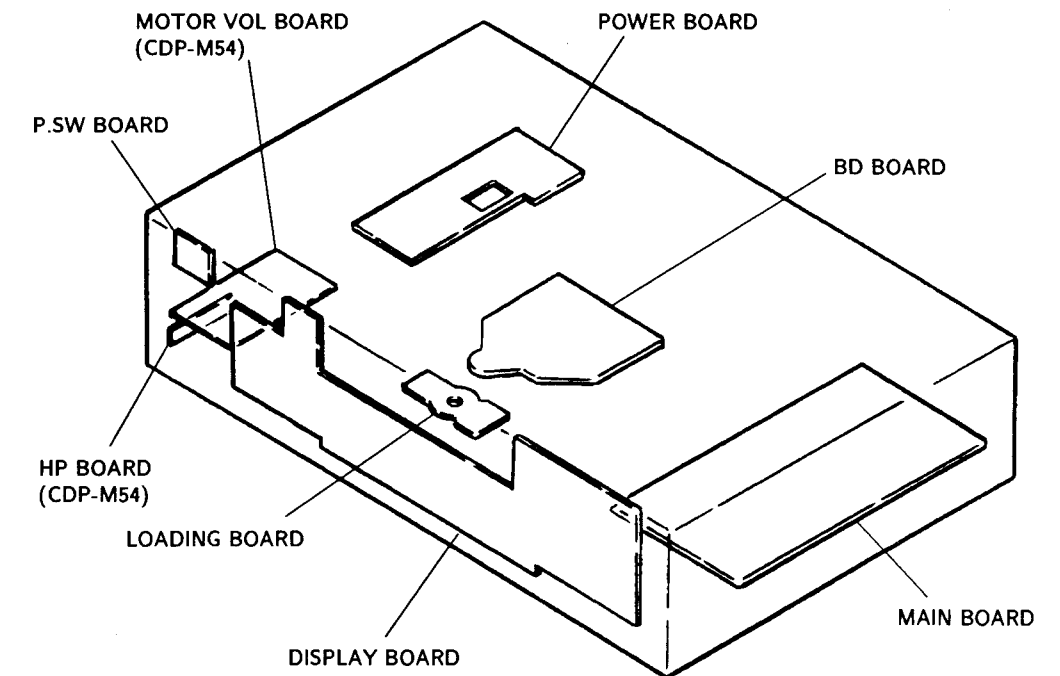


4-1 BLOCK DIAGRAM





4-2 CIRCUIT BOARDS LOCATION



4-3 SEMICONDUCTOR LEAD LAYOUTS

BA6208
RC4556S

2SB1094-LK

BA6297AFP

2SC1815-Y
2SC2878-AB

CXD2500AQ

2SD774-34

CXD2501Q

RD5.6ES-B2
RD7.5ES-B2
RD7.5JS-B2
RD9.1ES-L
11ES2

DTA144ES
DTC114ES
DTC144ES
2SC2458-YGR

1N4148M
10E2

2SA1175-HFE
2SC3623A-LK

BR4361F

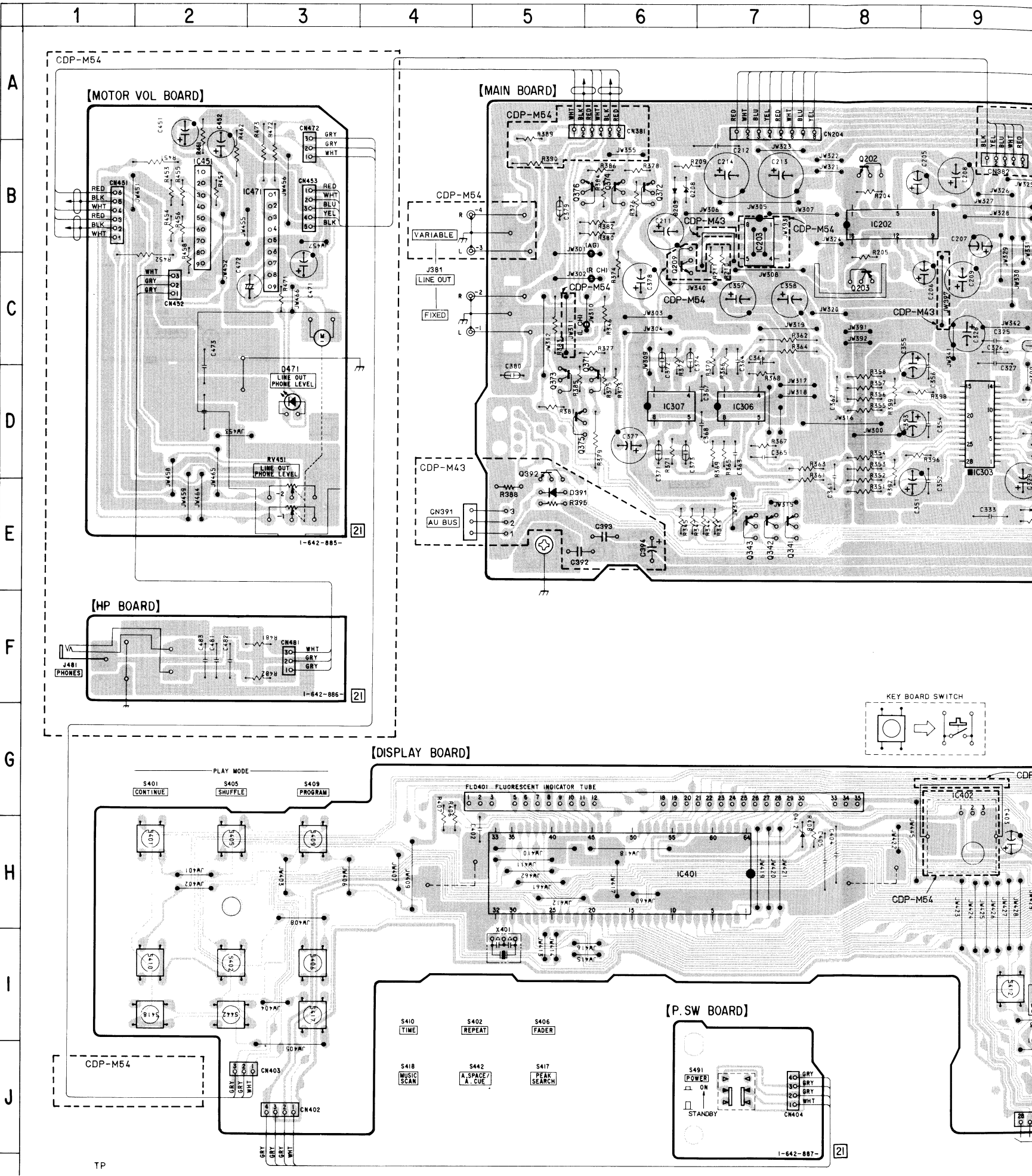
• SEMICONDUCTOR LOCATION

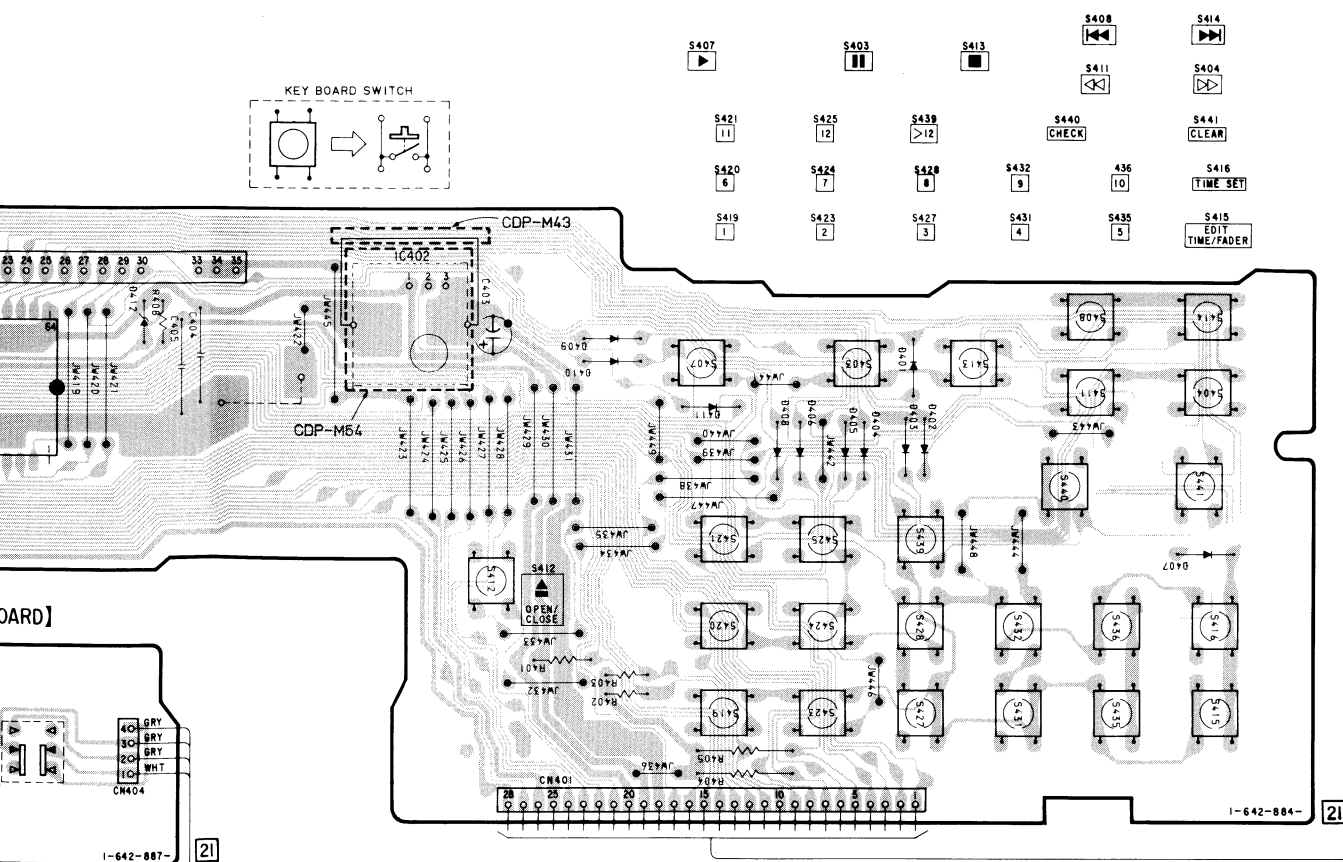
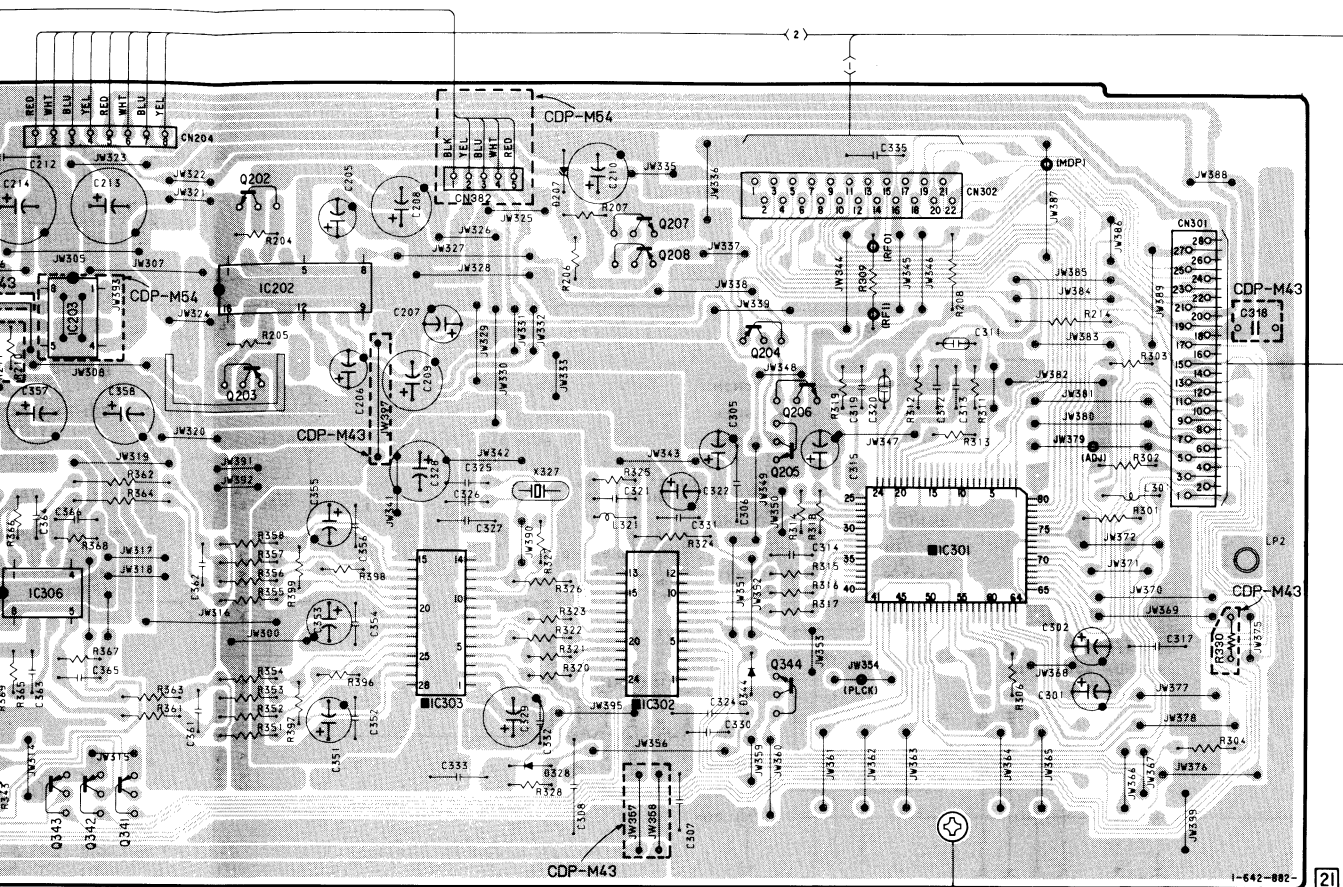
Ref. No.	Location	Ref. No.	Location
D201	J - 16	IC203	B - 7
D202	J - 15	IC301	D - 12
D203	I - 16	IC302	D - 10
D204	I - 16	IC303	D - 9
D205	I - 16	IC306	D - 7
D206	I - 16	IC307	D - 6
D207	B - 10	IC401	H - 6
D208	B - 6	IC402	G - 9
D209	B - 6	IC451	B - 2
D328	E - 10	IC471	B - 3
D344	D - 11		
D391	E - 5	Q201	J - 15
D401	H - 12	Q202	B - 8
D402	H - 12	Q203	C - 8
D403	H - 12	Q204	B - 11
D404	H - 11	Q205	C - 11
D405	H - 11	Q206	C - 11
D406	H - 11	Q207	B - 10
D407	I - 13	Q208	B - 10
D408	H - 11	Q209	C - 6
		Q341	E - 7
D409	H - 10	Q342	E - 7
D410	H - 10	Q343	E - 7
D411	H - 10	Q344	D - 11
D412	H - 7	Q371	D - 6
D471	D - 3	Q372	B - 6
IC101	C - 16	Q373	D - 5
IC102	B - 16	Q374	B - 6
IC103	B - 17	Q375	D - 5
IC201	J - 15	Q376	B - 6
IC202	B - 8	Q392	D - 5

Note :

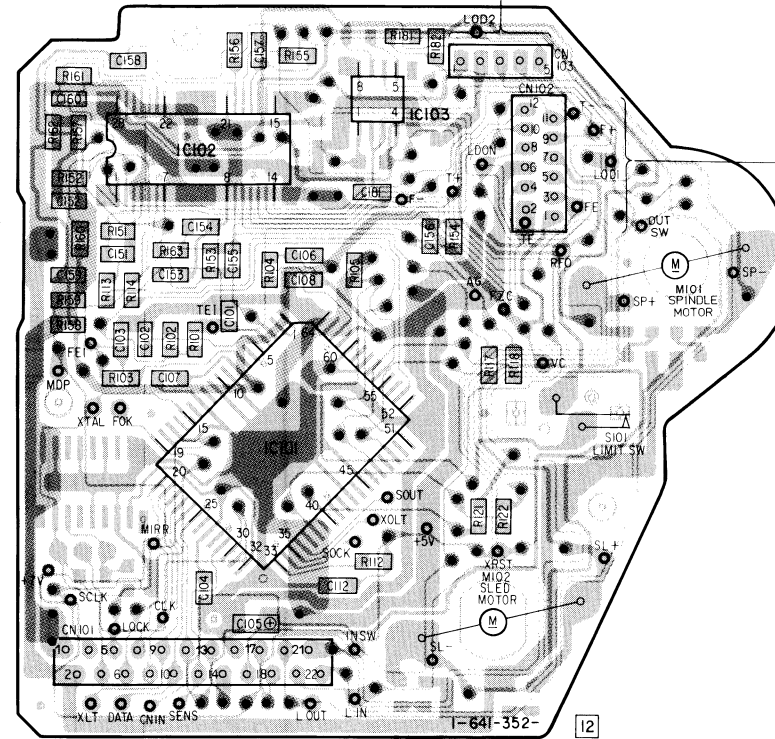
- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : Through hole.
- ▨ : Pattern on the side which is seen.
- ▩ : Pattern of the rear side.

4-4 PRINTED WIRING BOARDS

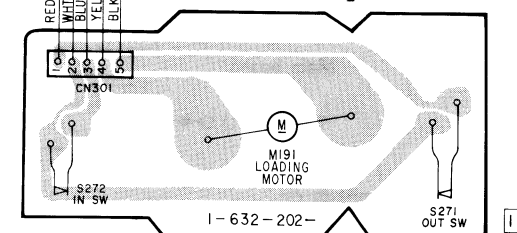
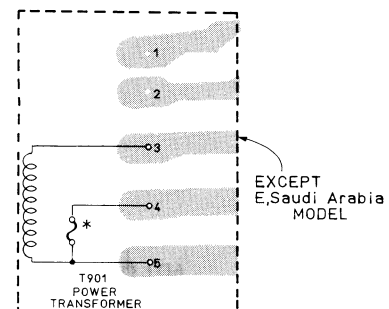
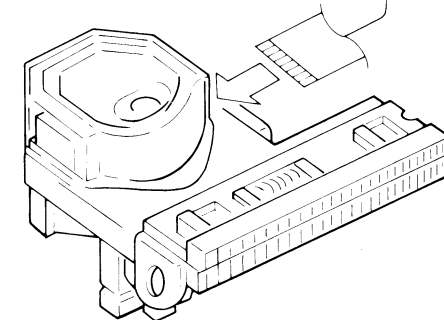




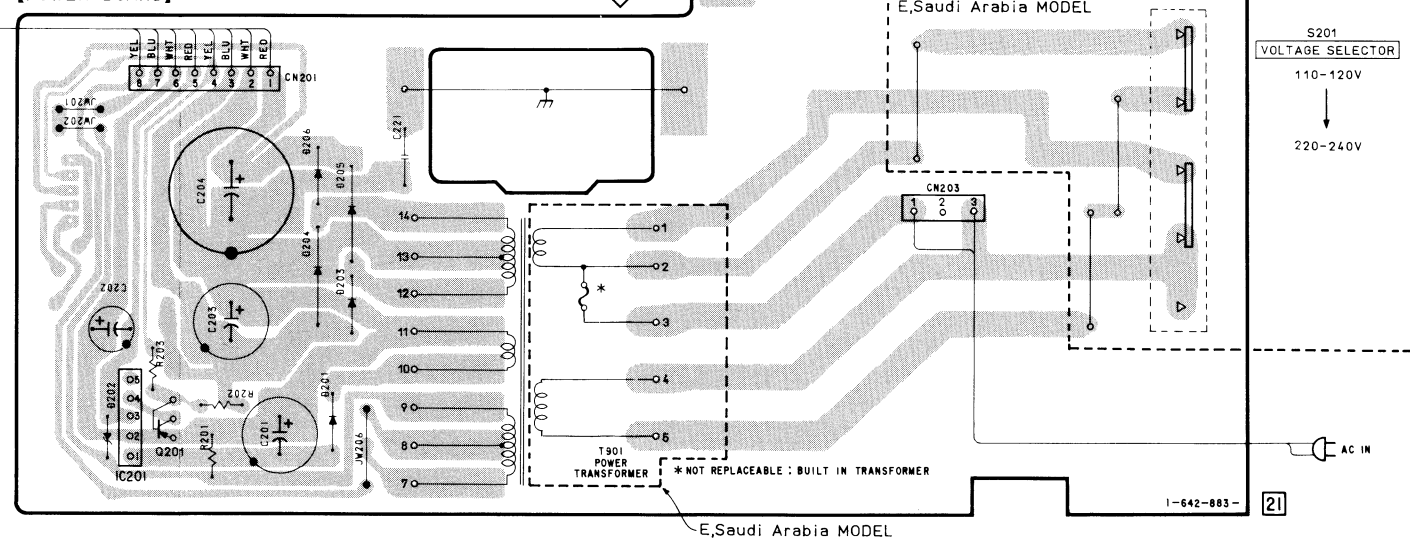
【BD BOARD】



【LOADING BOARD】

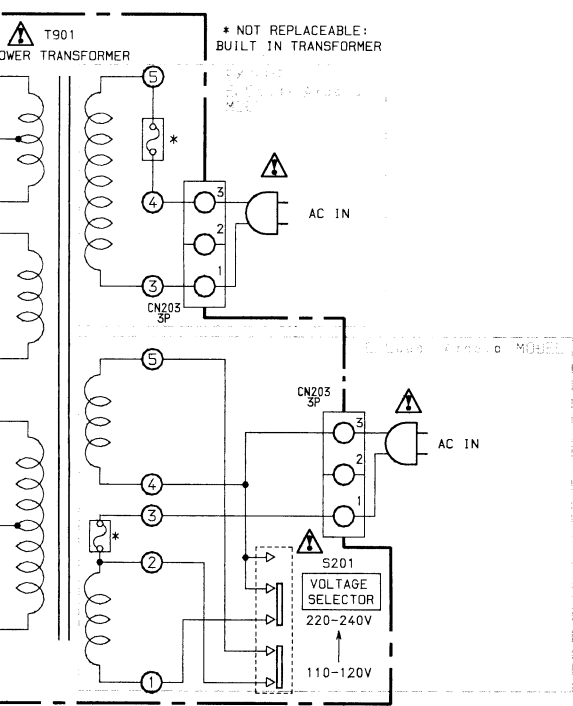
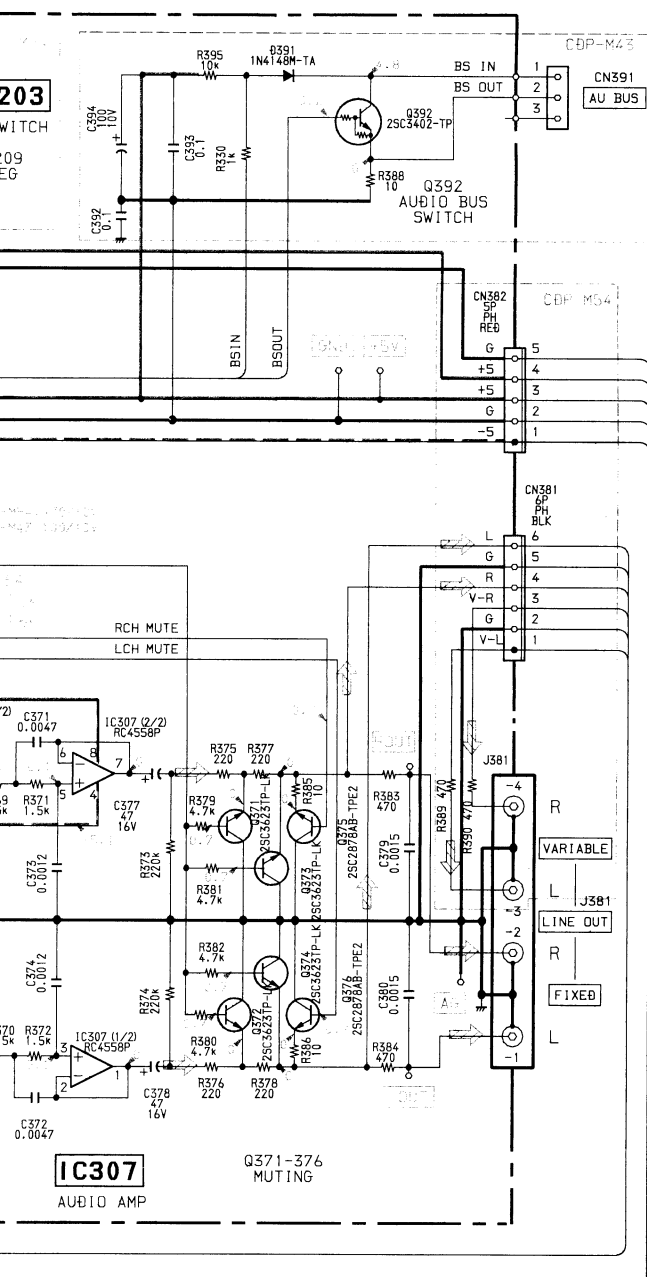
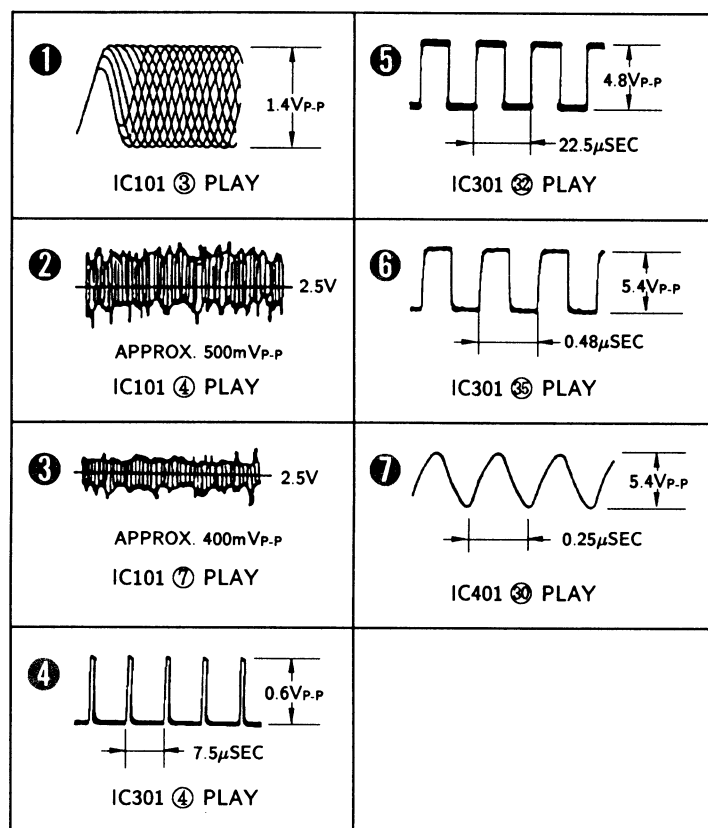
OPTICAL
PICK-UP BLOCK
KSS-240A

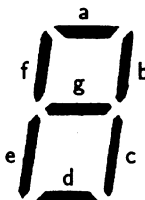
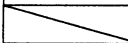
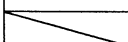

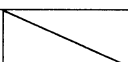

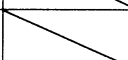
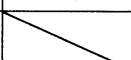
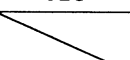
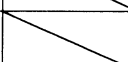
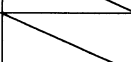
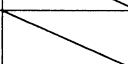
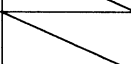

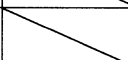
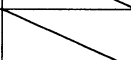

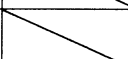

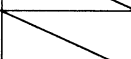

【POWER BOARD】







WAVEFORMS




**FLD401**

	8G	7G	6G	5G	4G	3G	2G	1G
a							1	3
b							2	4
c								5
d							6	8
e							7	9
f								10
g								
h			PEAK	MIN	STEP	SEC	11	13
i			—	•			12	14
j	SHUFFLE		JUST	EDIT		TIME		15
k	PROGRAM		A. CUE	A			16	18
l	REPEAT		LINK	B			17	19
m	1		A. SPACE			FADE 		20

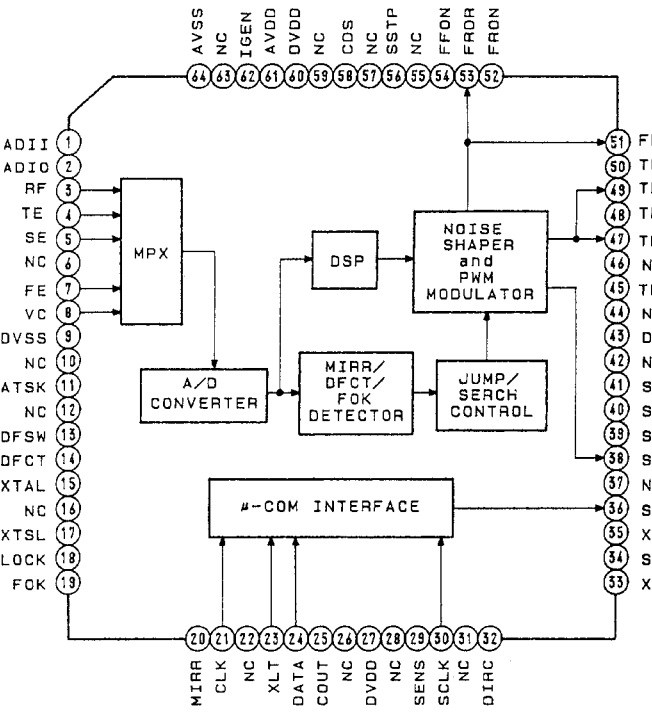
Note :

- All capacitors are in μF unless otherwise noted. $pF : \mu F$
50WV or less are not indicated except for electrolytics
and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise
specified.
- Δ : internal component.

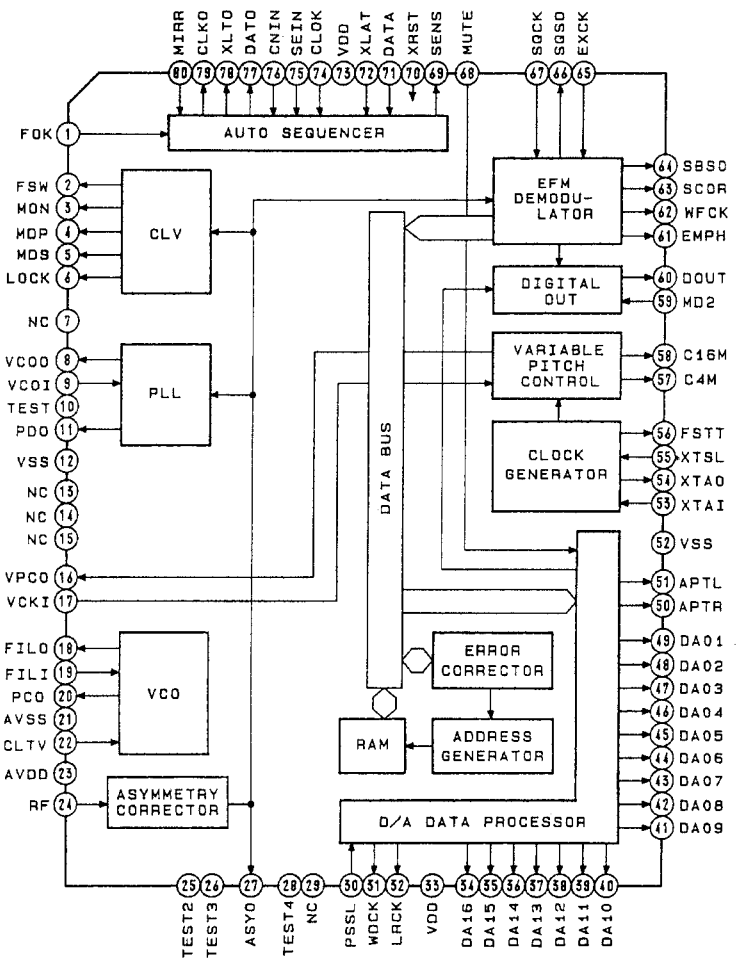
Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

-  : B + Line
-  : B - Line
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : STOP
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 : CD

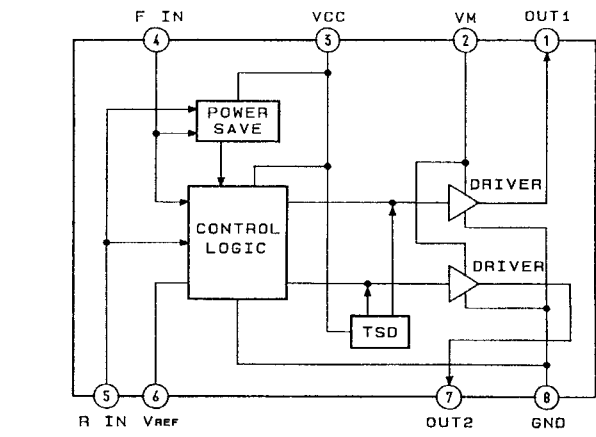
IC101 CXD2501



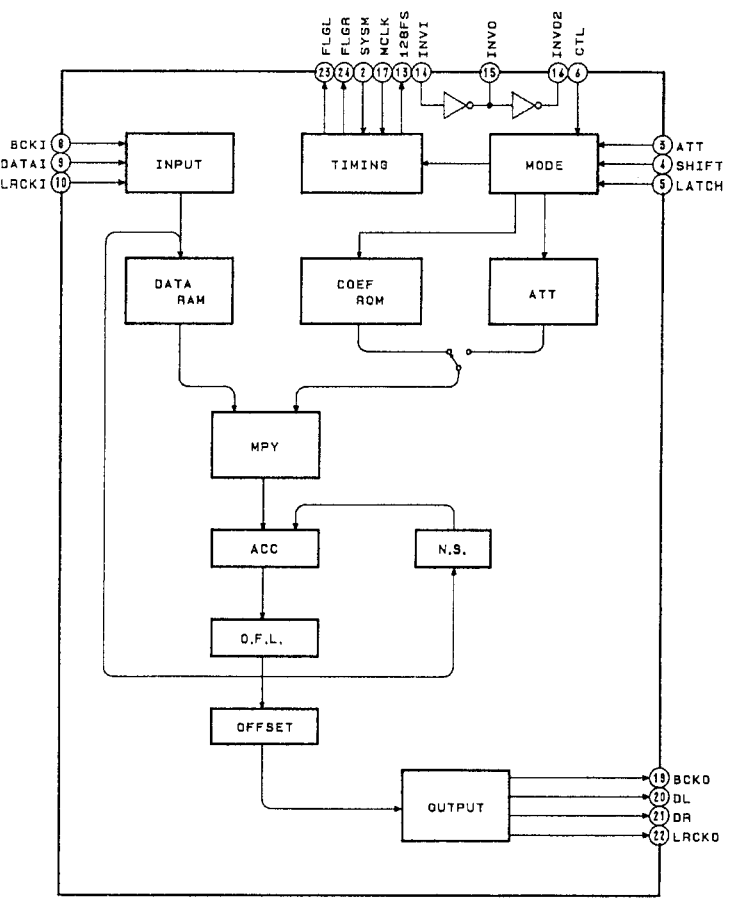
IC301 CXD2500AQ



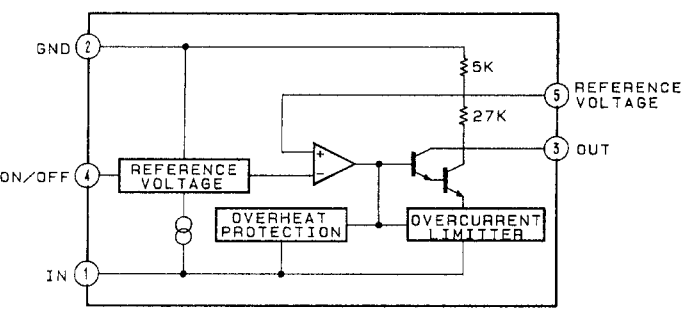
IC103 BA6287F



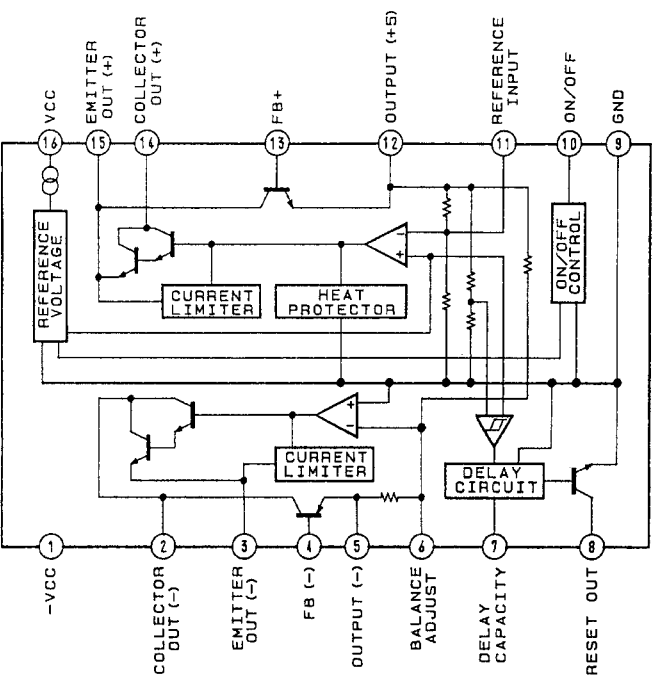
IC302 CXD2560M



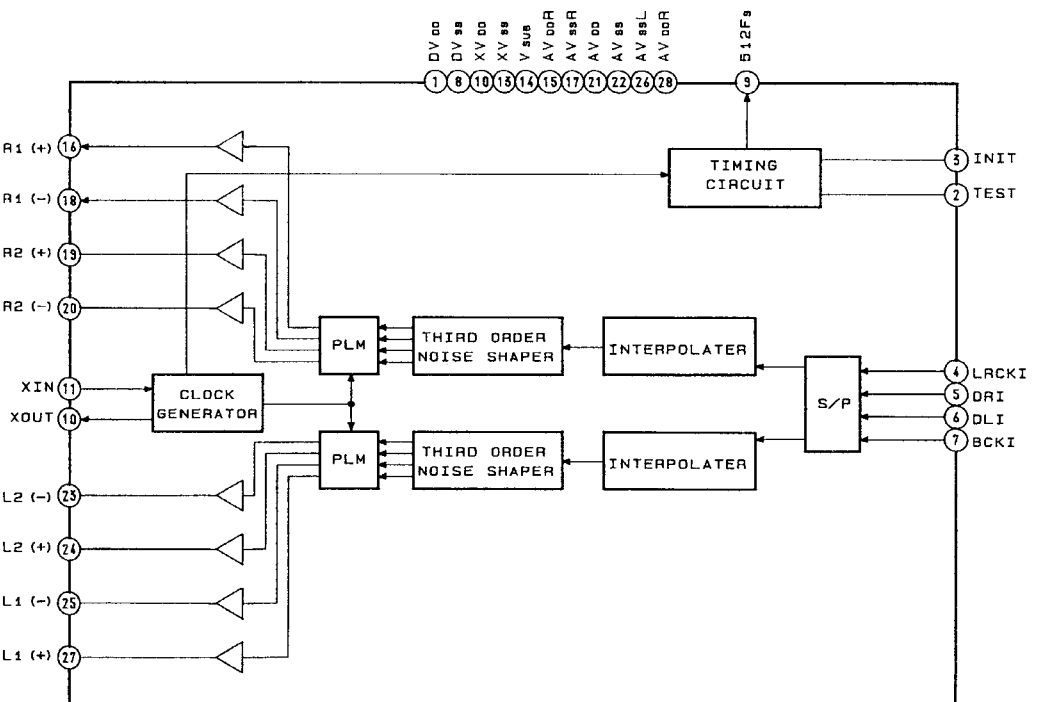
IC201 M5293L



IC202 M5290P-16



IC303 CXD2561AM





SECTION 5 EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE).... (RED)

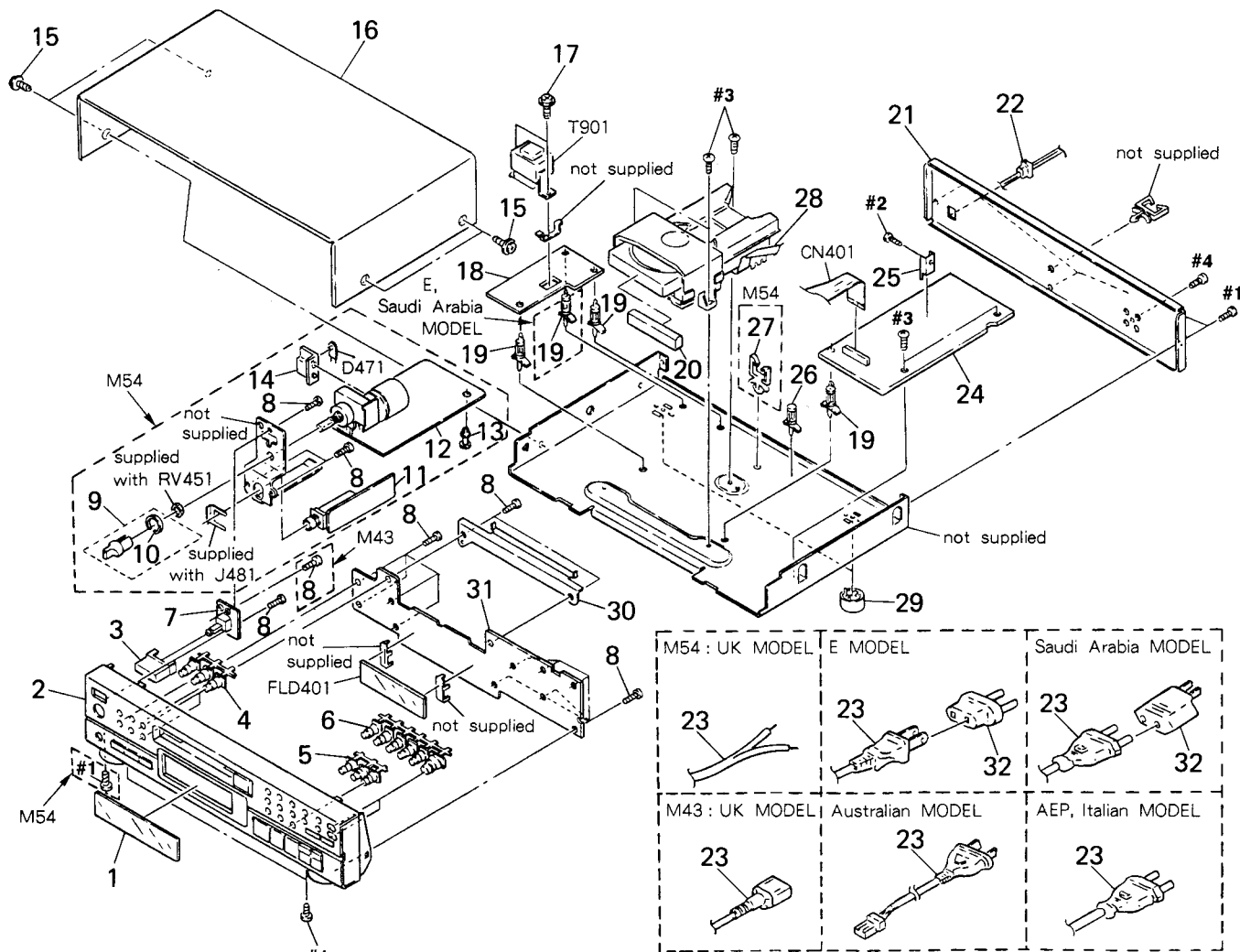
Parts color Cabinet's color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

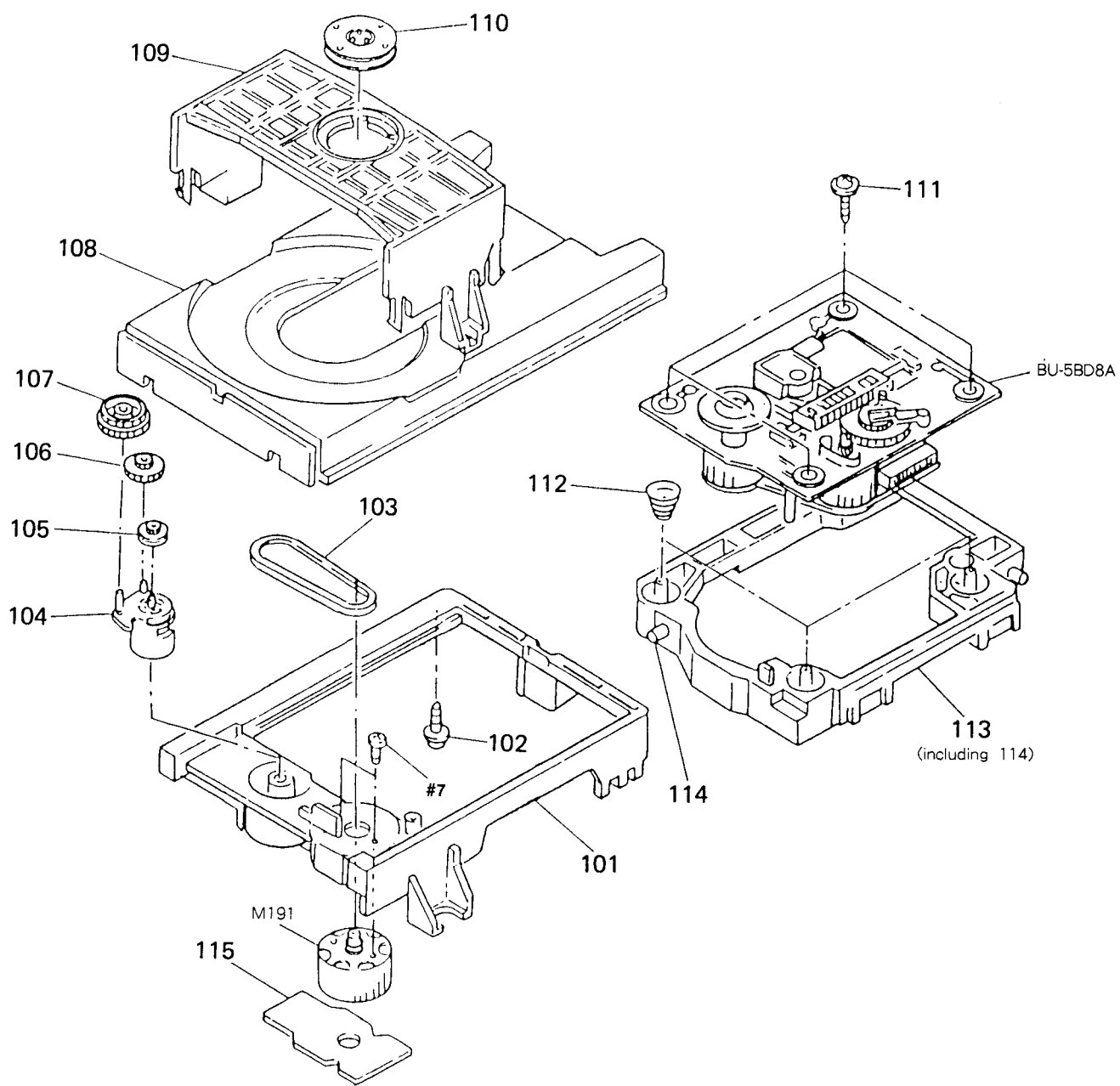
5-1 CABINET SECTION



Ref. No.	Part No.	Description
1	4-950-182-01	PLATE, INDICATION (M54)
1	4-950-182-11	PLATE, INDICATION (M43)
2	X-4942-345-1	PANEL ASSY, FRONT (BLACK)
2	X-4942-346-1	PANEL ASSY, FRONT (GRAY) (EXCEPT M54)
2	X-4942-347-1	PANEL ASSY, FRONT (BLACK) (EXCEPT M54)
3	4-950-176-01	BUTTON (POWER) (GRAY) (EXCEPT M54)
3	4-950-176-11	BUTTON (POWER) (BLACK) (EXCEPT M54)
4	4-950-177-01	BUTTON (G) (GRAY) (EXCEPT M54)
4	4-950-177-11	BUTTON (G) (BLACK) (EXCEPT M54)
5	4-950-179-01	BUTTON (MC/B) (GRAY) (EXCEPT M54)
5	4-950-179-11	BUTTON (MC/B) (BLACK) (EXCEPT M54)
6	4-950-178-01	BUTTON (MC/A) (GRAY) (EXCEPT M54)
6	4-950-178-11	BUTTON (MC/A) (BLACK) (EXCEPT M54)
* 7	1-642-887-21	P. SW BOARD
8	4-928-635-01	SCREW, +BV (2.6X8) TA
9	A-4604-901-A	KNOB (HP) ASSY (M54)
10	4-948-469-01	SPRING, RING (M54)
11	1-642-886-21	HP BOARD (M54)
* 12	A-4649-107-A	MOTOR VOL BOARD, COMP
* 13	3-676-567-00	SPACER (M54:E, AEP)
* 14	4-922-980-01	HOLDER (LED) (M54)
15	3-363-099-01	SCREW (CASE +3X8 TP2)
15	3-704-366-01	SCREW (CASE) (M3X8) (MA
16	4-919-376-31	CASE (BLACK) (M54/M43)
16	4-919-376-81	CASE (GRAY) (EXCEPT M54)
17	4-886-821-11	SCREW, S TIGHT, +PTTW
* 18	1-642-883-21	POWER BOARD
* 19	4-924-098-31	HOLDER, PC BOARD
20	4-950-174-01	PANEL, LOADING (GRAY) (EXCEPT M54)
20	4-950-174-11	PANEL, LOADING (BLACK) (EXCEPT M54)
20	4-950-174-21	PANEL, LOADING (BLACK) (EXCEPT M54)

5-2 MD SECTION (CDM14-5BD8A)

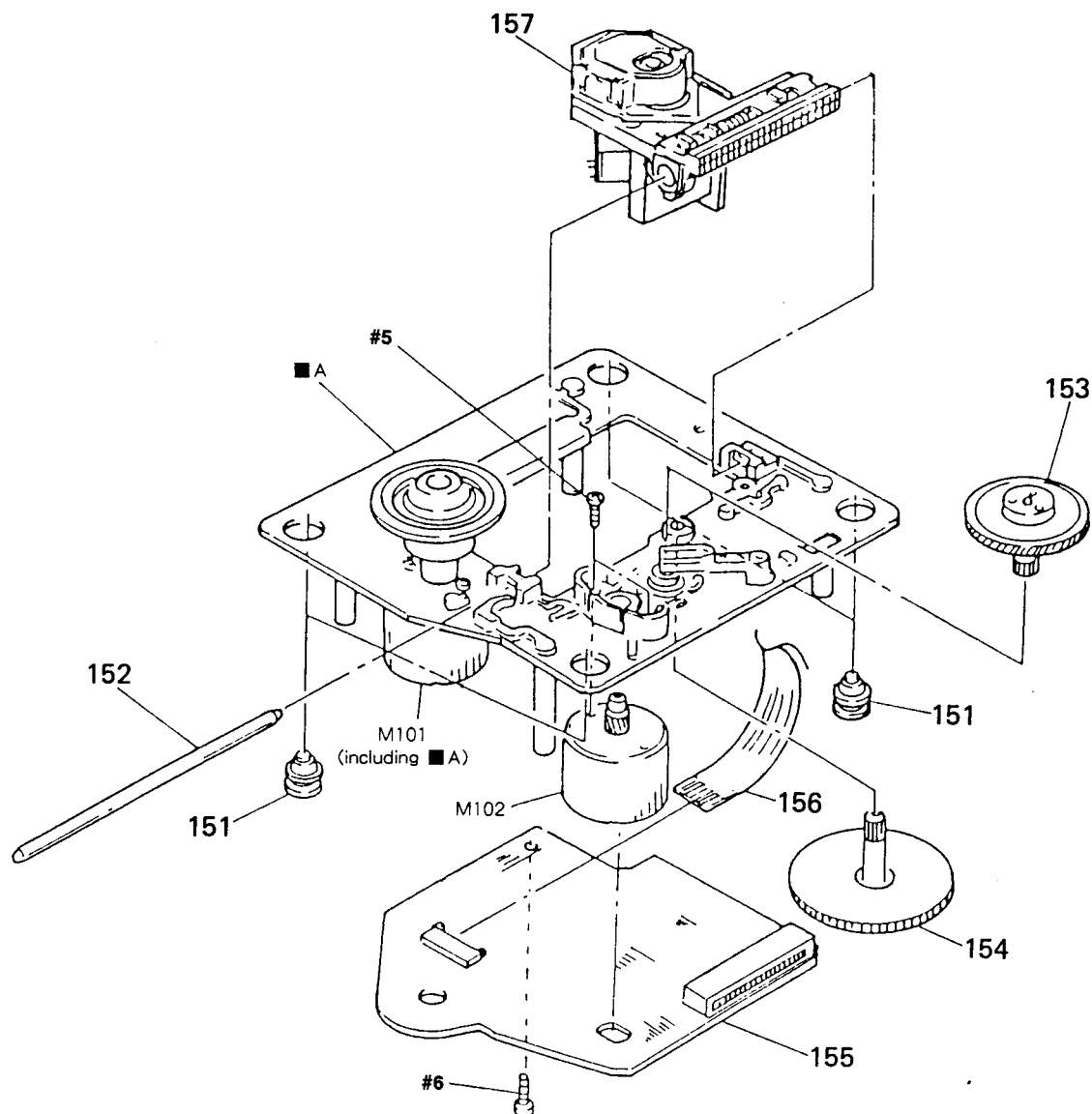
Ref. No.	Part No.	Description	Remark
* 21	4-941-467-11	PANEL (ALSACE), BACK (MADE IN FRANCE M43:AEP, Italian, UK)	
21	4-941-552-21	PANEL (ALSACE), BACK (MADE IN JAPAN M54:AEP, UK)	
* 21	4-949-433-01	PANEL, BACK (MADE IN JAPAN M54:AEP)	
* 21	4-949-433-22	PANEL, BACK (M54:E)	
* 21	4-949-433-41	PANEL, BACK (MADE IN FRANCE M43:AEP)	
* 21	4-949-433-51	PANEL, BACK (M43:E, Saudi Arabia)	
* 21	4-949-433-61	PANEL, BACK (M43: Australian)	
* 22	3-703-244-00	BUSHING (2104), CORD (EXCEPT E)	
* 22	3-703-571-11	BUSHING (S) (4516), CORD (E)	
A23	1-558-946-21	CORD, POWER (M54:UK)	
A23	1-574-358-31	CORD, POWER (WITH CONNECTOR) (Australian)	
A23	1-575-651-21	CORD, POWER (AEP, Italian, Saudi Arabia)	
A23	1-575-653-21	CORD, POWER (E)	
A23	1-590-379-11	CORD, POWER (M43:UK)	
* 24	A-4649-105-A	MAIN BOARD, COMPLETE (M54)	
* 24	A-4649-111-A	MAIN BOARD, COMPLETE (M43)	
* 25	4-941-237-01	HEAT SINK (M54:UK)	
25	4-902-345-01	HEAT SINK (EXCEPT M54:UK)	
* 26	3-349-025-41	HOLDER, PC BOARD	
* 27	4-314-320-00	HOLDER, WIRE (M54)	
28	1-575-160-11	WIRE, FLAT TYPE (22 CORE)	
29	4-931-169-01	FOOT	
30	4-950-180-01	REINFORCEMENT (MD)	
* 31	A-4649-104-A	DISP BOARD, COMPLETE (M54)	
* 31	A-4649-110-A	DISP BOARD, COMPLETE (M43)	
A32	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
A32	1-569-008-11	ADAPTER, CONVERSION 2P (Saudi Arabia)	
CN401	1-535-987-11	JAMPER, FILM (WITH TERMINAL)	
D471	8-719-970-49	DIODE BR4361F (M54)	
A T901	1-449-922-11	TRANSFORMER, POWER (EXCEPT E, Saudi Arabia)	
A T901	1-449-923-11	TRANSFORMER, POWER (E, Saudi Arabia)	



Ref. No.	Part No.	Description	Remarks
101	4-933-111-01	CHASSIS (MD) (MADE IN JAPAN)	
101	4-933-111-11	CHASSIS (MD) (MADE IN FRANCE)	
* 102	4-917-583-21	BRACKET, YOKE	
103	4-927-649-01	BELT	
104	4-933-109-01	CAM	
105	4-927-651-01	PULLEY (S)	
106	4-927-628-01	GEAR (C)	
107	4-933-107-01	GEAR (PL)	
108	4-948-894-01	TABLE (ALS), DISK (MADE IN FRANCE)	
108	4-949-336-01	TABLE, DISK (MADE IN JAPAN)	

Ref. No.	Part No.	Description	Remark
109	4-933-110-01	HOLDER (MG)	
* 110	1-452-538-11	MAGNET	
111	4-933-134-01	SCREW (+PTPHW M2. 6X6)	
112	4-917-541-01	SPRING (B) (MADE IN FRANCE)	
112	4-948-503-01	SPRING (BU), COMPRESSION (MADE IN JAPAN)	
113	4-933-129-01	HOLDER (BU)	
114	4-933-108-01	SHAFT (CAM)	
* 115	1-632-202-11	LOADING BOARD	
M191	A-4604-363-A	MOTOR (L) ASSY	

5-3 OPTICAL PICK-UP BLOCK (BU-55BD8A)



Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
151	4-933-126-01	INSULATOR (A)	
152	4-917-565-01	SHAFT, SLED	
153	4-917-567-01	GEAR (M)	
154	4-917-564-01	GEAR (P), FLATNESS	
* 155	A-4617-977-A	BD BOARD, COMPLETE	
156	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
Δ 157	8-848-144-11	DEVICE, OPTICAL KSS-240A	
M101	X-4917-523-3	BASE (OUTSERT) ASSY	
M102	X-4917-504-1	MOTOR ASSY	

BD

SECTION 6 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal oxide-film resistor
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

In each case, u: μ , for example:uA.....: μ A....., uPA.....: μ PA.....uPB.....: μ PB....., uPC.....: μ PC.....uPD.....: μ PD.....

● CAPACITORS

uF: μ F

● COILS

uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark	
*	A-4617-977-A	BD BOARD, COMPLETE *****					< RESISTOR >		
		< CAPACITOR >							
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	R101	1-216-077-00	METAL CHIP	15K 5% 1/10W
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R102	1-216-097-00	METAL CHIP	100K 5% 1/10W
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	R103	1-216-077-00	METAL CHIP	15K 5% 1/10W
C104	1-164-505-11	CERAMIC CHIP	2.2uF		16V	R104	1-216-085-00	METAL CHIP	33K 5% 1/10W
C105	1-135-155-21	TANTALUM CHIP	4.7uF	10%	16V	R105	1-216-097-00	METAL CHIP	100K 5% 1/10W
C106	1-164-346-11	CERAMIC CHIP	1uF		16V	R112	1-216-049-00	METAL CHIP	1K 5% 1/10W
C107	1-164-505-11	CERAMIC CHIP	2.2uF		16V	R113	1-216-077-00	METAL CHIP	15K 5% 1/10W
C108	1-164-346-11	CERAMIC CHIP	1uF		16V	R114	1-216-077-00	METAL CHIP	15K 5% 1/10W
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R117	1-216-077-00	METAL CHIP	15K 5% 1/10W
C151	1-163-007-11	CERAMIC CHIP	680PF	10%	50V	R118	1-216-077-00	METAL CHIP	15K 5% 1/10W
C152	1-163-007-11	CERAMIC CHIP	680PF	10%	50V	R121	1-216-077-00	METAL CHIP	15K 5% 1/10W
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R122	1-216-077-00	METAL CHIP	15K 5% 1/10W
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V	R151	1-216-070-00	METAL CHIP	7.5K 5% 1/10W
C155	1-163-007-11	CERAMIC CHIP	680PF	10%	50V	R152	1-216-070-00	METAL CHIP	7.5K 5% 1/10W
C156	1-163-007-11	CERAMIC CHIP	680PF	10%	50V	R153	1-216-070-00	METAL CHIP	7.5K 5% 1/10W
C157	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	R154	1-216-070-00	METAL CHIP	7.5K 5% 1/10W
C158	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	R155	1-216-070-00	METAL CHIP	7.5K 5% 1/10W
C159	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V	R156	1-216-070-00	METAL CHIP	7.5K 5% 1/10W
C160	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	R157	1-216-085-00	METAL CHIP	33K 5% 1/10W
C181	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R158	1-216-076-00	METAL CHIP	13K 5% 1/10W
		< CONNECTOR >				R159	1-216-085-00	METAL CHIP	33K 5% 1/10W
CN101	1-568-796-11	SOCKET, CONNECTOR 22P				R160	1-216-081-00	METAL CHIP	22K 5% 1/10W
CN102	1-568-795-11	SOCKET, CONNECTOR 12P				R161	1-216-093-00	METAL CHIP	68K 5% 1/10W
CN103	1-564-721-11	PIN, CONNECTOR (SMALL TYPE) 5P				R162	1-216-085-00	METAL CHIP	33K 5% 1/10W
		< IC >				R163	1-216-308-00	METAL CHIP	4.7 5% 1/10W
IC101	8-752-344-48	IC	CXD2501Q			R181	1-216-021-00	METAL CHIP	68 5% 1/10W
IC102	8-759-071-80	IC	BA6297AFP			R182	1-216-021-00	METAL CHIP	68 5% 1/10W
IC103	8-759-040-83	IC	BA6287F						

BD

DISP

HP

Ref. No.	Part No.	Description	Remark
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< SWITCH >

S101 1-572-085-11 SWITCH, LEAF (LIMIT SW)

* A-4649-104-A DISP BOARD, COMPLETE (M54)

* A-4649-110-A DISP BOARD, COMPLETE (M43)

< CAPACITOR >

C402	1-164-159-11	CERAMIC	0.1uF	50V
C403	1-126-154-11	ELECT	47uF	20% 6.3V
C404	1-161-494-00	CERAMIC	0.022uF	25V
C405	1-164-159-11	CERAMIC	0.1uF	50V

< CONNECTOR >

CN401 1-535-987-11 JAMPER, FILM (WITH TERMINAL)

< DIODE >

D401	8-719-987-63	DIODE	1N4148M
D402	8-719-987-63	DIODE	1N4148M
D403	8-719-987-63	DIODE	1N4148M
D404	8-719-987-63	DIODE	1N4148M
D405	8-719-987-63	DIODE	1N4148M
D406	8-719-987-63	DIODE	1N4148M
D407	8-719-987-63	DIODE	1N4148M
D408	8-719-987-63	DIODE	1N4148M
D409	8-719-987-63	DIODE	1N4148M
D410	8-719-987-63	DIODE	1N4148M
D411	8-719-987-63	DIODE	1N4148M
D412	8-719-121-24	DIODE	RD9.1ESL

< FLUORESCENT INDICATOR >

FLD401 1-519-681-11 INDICATOR TUBE, FLUORESCENT

< IC >

IC401	8-759-061-40	IC	uPD75216ACW-C73 (M54)
IC401	8-759-070-44	IC	uPD75216ACW-C93 (M43)
IC402	8-741-100-48	IC	SBX1610-59 (M54)

< RESISTOR >

R401	1-249-435-11	CARBON	33K	5%	1/4W
R402	1-249-435-11	CARBON	33K	5%	1/4W
R403	1-249-435-11	CARBON	33K	5%	1/4W
R404	1-249-435-11	CARBON	33K	5%	1/4W
R405	1-249-435-11	CARBON	33K	5%	1/4W
R406	1-249-425-11	CARBON	4.7K	5%	1/4W
R407	1-249-425-11	CARBON	4.7K	5%	1/4W
R408	1-249-439-11	CARBON	68K	5%	1/4W

Ref. No.	Part No.	Description	Remark
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< SWITCH >

S401 1-554-303-21 SWITCH, TACTILE (CONTINUE)

S402 1-554-303-21 SWITCH, TACTILE (REPEAT)

S403 1-554-303-21 SWITCH, TACTILE (

S404 1-554-303-21 SWITCH, TACTILE (

S405 1-554-303-21 SWITCH, TACTILE (SHUFFLE)

S406 1-554-303-21 SWITCH, TACTILE (FADER)

S407 1-554-303-21 SWITCH, TACTILE (

S408 1-554-303-21 SWITCH, TACTILE (

S409 1-554-303-21 SWITCH, TACTILE (PROGRAM)

S410 1-554-303-21 SWITCH, TACTILE (TIME)

S411 1-554-303-21 SWITCH, TACTILE (

S412 1-554-303-21 SWITCH, TACTILE (OPEN/CLOSE)

S413 1-554-303-21 SWITCH, TACTILE (

S414 1-554-303-21 SWITCH, TACTILE (

S415 1-554-303-21 SWITCH, TACTILE (EDIT)

S416 1-554-303-21 SWITCH, TACTILE (TIME SET)

S417 1-554-303-21 SWITCH, TACTILE (PEAK SERCH)

S418 1-554-303-21 SWITCH, TACTILE (MUSIC SCAN)

S419 1-554-303-21 SWITCH, TACTILE (1)

S420 1-554-303-21 SWITCH, TACTILE (6)

S421 1-554-303-21 SWITCH, TACTILE (11)

S423 1-554-303-21 SWITCH, TACTILE (2)

S424 1-554-303-21 SWITCH, TACTILE (7)

S425 1-554-303-21 SWITCH, TACTILE (12)

S427 1-554-303-21 SWITCH, TACTILE (3)

S428 1-554-303-21 SWITCH, TACTILE (8)

S431 1-554-303-21 SWITCH, TACTILE (4)

S432 1-554-303-21 SWITCH, TACTILE (9)

S435 1-554-303-21 SWITCH, TACTILE (5)

S436 1-554-303-21 SWITCH, TACTILE (10)

S439 1-554-303-21 SWITCH, TACTILE (>12)

S440 1-554-303-21 SWITCH, TACTILE (CHECK)

S441 1-554-303-21 SWITCH, TACTILE (CLEAR)

S442 1-554-303-21 SWITCH, TACTILE (A. SPACE/A. CUE)

< VIBRATOR >

X401 1-577-358-21 VIBRATOR, CERAMIC (4MHz)

1-642-886-21 HP BOARD (M54)

< CAPACITOR >

C481	1-162-294-31	CERAMIC	0.001uF	10%	50V (M54)
C482	1-162-294-31	CERAMIC	0.001uF	10%	50V (M54)
C483	1-164-159-11	CERAMIC	0.1uF		50V (M54)

HP LOADING MAIN

Ref. No.	Part No.	Description	Remark			
< JACK >						
J481	1-568-519-41	JACK, LARGE TYPE (PHONES) (M54)				
< RESISTOR >						
R481	1-249-402-11	CARBON	56	5%	1/4W (M54)	
R482	1-249-402-11	CARBON	56	5%	1/4W (M54)	

*	1-632-202-11	LOADING BOARD				

< CONNECTOR >						
* CN301	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P				
< SWITCH >						
S271	1-572-086-11	SWITCH, LEAF (OUT SW)				
S272	1-572-086-11	SWITCH, LEAF (IN SW)				

*	A-4649-105-A	MAIN BOARD, COMPLETE (M54)				
*	A-4649-111-A	MAIN BOARD, COMPLETE (M43)				

	4-902-345-01	HEAT SINK (EXCEPT M54:UK)				
*	4-941-237-01	HEAT SINK (M54:UK)				
< CAPACITOR >						
C205	1-126-163-11	ELECT	4.7uF	20%	50V	
C206	1-126-059-11	ELECT	10uF	20%	50V	
C207	1-126-059-11	ELECT	10uF	20%	50V	
C208	1-124-997-11	ELECT	470uF	20%	10V	
C209	1-124-997-11	ELECT	470uF	20%	10V	
C210	1-126-024-11	ELECT	220uF	20%	16V	
C211	1-124-997-11	ELECT	470uF	20%	10V	
C212	1-164-159-11	CERAMIC	0.1uF		50V	
C213	1-126-012-11	ELECT	470uF	20%	16V	
C214	1-126-012-11	ELECT	470uF	20%	16V	
C301	1-126-022-11	ELECT	47uF	20%	16V	
C302	1-126-301-11	ELECT	1uF	20%	50V	
C305	1-126-022-11	ELECT	47uF	20%	16V	
C306	1-164-159-11	CERAMIC	0.1uF		50V	
C307	1-164-159-11	CERAMIC	0.1uF		50V	
C308	1-164-159-11	CERAMIC	0.1uF		50V	
C311	1-130-491-00	MYLAR	0.047uF	5%	50V	
C312	1-161-374-11	CERAMIC	0.0015uF	20%	50V	
C313	1-161-494-00	CERAMIC	0.022uF		25V	
C314	1-162-306-11	CERAMIC	0.01uF	20%	16V	

Ref. No.	Part No.	Description	Remark			
C315	1-126-300-11	ELECT	0.47uF	20%	50V	
C317	1-164-159-11	CERAMIC	0.1uF		50V	
C318	1-164-159-11	CERAMIC	0.1uF		50V (M43)	
C319	1-162-282-31	CERAMIC	100PF	10%	50V	
C320	1-130-483-00	MYLAR	0.01uF	5%	50V	
C321	1-162-208-31	CERAMIC	24PF	5%	50V	
C322	1-124-994-11	ELECT	100uF	20%	10V	
C324	1-164-159-11	CERAMIC	0.1uF		50V	
C325	1-162-205-31	CERAMIC	18PF	5%	50V	
C326	1-162-205-31	CERAMIC	18PF	5%	50V	
C327	1-164-159-11	CERAMIC	0.1uF		50V	
C328	1-126-024-11	ELECT	220uF	20%	16V	
C329	1-126-024-11	ELECT	220uF	20%	16V	
C330	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C331	1-164-159-11	CERAMIC	0.1uF		50V	
C332	1-164-159-11	CERAMIC	0.1uF		50V	
C333	1-164-159-11	CERAMIC	0.1uF		50V	
C335	1-164-159-11	CERAMIC	0.1uF		50V	
C351	1-126-022-11	ELECT	47uF	20%	16V	
C352	1-164-159-11	CERAMIC	0.1uF		50V	
C353	1-126-022-11	ELECT	47uF	20%	16V	
C354	1-164-159-11	CERAMIC	0.1uF		50V	
C355	1-126-022-11	ELECT	47uF	20%	16V	
C356	1-164-159-11	CERAMIC	0.1uF		50V	
C357	1-124-994-11	ELECT	100uF	20%	10V (M43)	
C357	1-124-997-11	ELECT	470uF	20%	10V (M54)	
C358	1-124-994-11	ELECT	100uF	20%	10V (M43)	
C358	1-124-997-11	ELECT	470uF	20%	10V (M54)	
C361	1-162-280-31	CERAMIC	82PF	10%	50V	
C362	1-162-280-31	CERAMIC	82PF	10%	50V	
C363	1-162-213-31	CERAMIC	39PF	5%	50V	
C364	1-162-213-31	CERAMIC	39PF	5%	50V	
C365	1-162-213-31	CERAMIC	39PF	5%	50V	
C366	1-162-213-31	CERAMIC	39PF	5%	50V	
C367	1-161-494-00	CERAMIC	0.022uF		25V	
C368	1-161-494-00	CERAMIC	0.022uF		25V	
C371	1-106-359-00	MYLAR	4700PF	5%	200V	
C372	1-106-359-00	MYLAR	4700PF	5%	200V	
C373	1-130-472-00	MYLAR	0.0012uF	5%	50V	
C374	1-130-472-00	MYLAR	0.0012uF	5%	50V	
C377	1-126-022-11	ELECT	47uF	20%	16V	
C378	1-126-022-11	ELECT	47uF	20%	16V	
C379	1-106-347-00	MYLAR	1500PF	5%	200V	
C380	1-106-347-00	MYLAR	1500PF	5%	200V	
C392	1-164-159-11	CERAMIC	0.1uF		50V (M43)	
C393	1-164-159-11	CERAMIC	0.1uF		50V (M43)	
C394	1-124-994-11	ELECT	100uF	20%	10V (M43)	

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
* CN204	1-564-511-11	PLUG, CONNECTOR 8P	
* CN301	1-568-843-11	SOCKET, CONNECTOR 28P	
* CN302	1-568-822-11	SOCKET, CONNECTOR 22P	
* CN381	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P (M54)	
* CN382	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P (M54)	
* CN391	1-565-561-11	PIN, CONNECTOR 3P (AU BUS) (M43)	
< DIODE >			
D207	8-719-114-49	DIODE RD7.5JSB2	
D208	8-719-109-89	DIODE RD5.6ESB2	
D209	8-719-987-63	DIODE 1N4148M	
D328	8-719-987-63	DIODE 1N4148M	
D344	8-719-987-63	DIODE 1N4148M	
D391	8-719-987-63	DIODE 1N4148M (M43)	
< IC >			
IC202	8-759-630-21	IC M5290P-16	
IC203	8-759-945-58	IC RC4558P (M54)	
IC301	8-752-337-26	IC CXD2500AQ	
IC302	8-752-342-65	IC CXD2560M	
IC303	8-752-349-01	IC CXD2561AM	
IC306	8-759-503-91	IC TL082ACP (M54)	
IC306	8-759-945-58	IC RC4558P (M43)	
IC307	8-759-945-58	IC RC4558P	
< JACK >			
J381	1-569-442-11	JACK, PIN 2P (LINE OUT) (M43)	
* J381	1-569-443-11	JACK, PIN 4P (LINE OUT) (M54)	
< COIL >			
L301	1-408-403-00	INDUCTOR 3.3uH	
L321	1-408-403-00	INDUCTOR 3.3uH	
< TRANSISTOR >			
Q202	8-729-140-96	TRANSISTOR 2SD774-34	
Q203	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q204	8-729-900-65	TRANSISTOR DTA144ES	
Q205	8-729-900-89	TRANSISTOR DTC144ES	
Q206	8-729-900-89	TRANSISTOR DTC144ES	
Q207	8-729-230-45	TRANSISTOR 2SC2458-YGR	
Q208	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q209	8-729-281-52	TRANSISTOR 2SC1815-Y (M54)	
Q341	8-729-900-65	TRANSISTOR DTA144ES	
Q342	8-729-900-65	TRANSISTOR DTA144ES	
Q343	8-729-900-65	TRANSISTOR DTA144ES	
Q344	8-729-900-89	TRANSISTOR DTC144ES	
Q371	8-729-141-30	TRANSISTOR 2SC3623A-LK	

Ref. No.	Part No.	Description	Remark
Q372	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q373	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q374	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q375	8-729-231-55	TRANSISTOR 2SC2878-AB	
Q376	8-729-231-55	TRANSISTOR 2SC2878-AB	
Q392	8-729-900-80	TRANSISTOR DTC114ES (M43)	
< RESISTOR >			
R204	1-249-425-11	CARBON 4.7K 5% 1/4W	
R205	1-249-425-11	CARBON 4.7K 5% 1/4W	
R206	1-249-417-11	CARBON 1K 5% 1/4W	
R207	1-249-417-11	CARBON 1K 5% 1/4W	
R208	1-249-423-11	CARBON 3.3K 5% 1/4W	
R209	1-249-413-11	CARBON 470 5% 1/4W	
R210	1-249-429-11	CARBON 10K 5% 1/4W (M54)	
R211	1-249-410-11	CARBON 270 5% 1/4W (M54)	
R214	1-249-417-11	CARBON 1K 5% 1/4W	
R301	1-249-417-11	CARBON 1K 5% 1/4W	
R302	1-249-417-11	CARBON 1K 5% 1/4W	
R303	1-249-421-11	CARBON 2.2K 5% 1/4W	
R304	1-249-417-11	CARBON 1K 5% 1/4W	
R306	1-249-413-11	CARBON 470 5% 1/4W	
R309	1-249-405-11	CARBON 100 5% 1/4W	
R311	1-249-423-11	CARBON 3.3K 5% 1/4W	
R312	1-249-429-11	CARBON 10K 5% 1/4W	
R313	1-249-423-11	CARBON 3.3K 5% 1/4W	
R314	1-249-429-11	CARBON 10K 5% 1/4W	
R315	1-249-417-11	CARBON 1K 5% 1/4W	
R316	1-249-417-11	CARBON 1K 5% 1/4W	
R317	1-249-419-11	CARBON 1.5K 5% 1/4W	
R318	1-249-441-11	CARBON 100K 5% 1/4W	
R319	1-247-903-00	CARBON 1M 5% 1/4W	
R320	1-249-417-11	CARBON 1K 5% 1/4W	
R321	1-249-417-11	CARBON 1K 5% 1/4W	
R322	1-249-417-11	CARBON 1K 5% 1/4W	
R323	1-249-417-11	CARBON 1K 5% 1/4W	
R324	1-249-417-11	CARBON 1K 5% 1/4W	
R325	1-249-417-11	CARBON 1K 5% 1/4W	
R326	1-249-417-11	CARBON 1K 5% 1/4W	
R327	1-247-903-00	CARBON 1M 5% 1/4W	
R328	1-247-895-00	CARBON 470K 5% 1/4W	
R330	1-249-417-11	CARBON 1K 5% 1/4W (M43)	
R343	1-249-441-11	CARBON 100K 5% 1/4W	
R344	1-249-441-11	CARBON 100K 5% 1/4W	
R345	1-249-425-11	CARBON 4.7K 5% 1/4W	
R346	1-249-425-11	CARBON 4.7K 5% 1/4W	
R347	1-249-441-11	CARBON 100K 5% 1/4W	
R351	1-249-436-11	CARBON 39K 5% 1/4W	

MAIN

MOTOR VOL

Ref. No.	Part No.	Description	Remark		
R352	1-249-436-11	CARBON	39K	5%	1/4W
R353	1-249-436-11	CARBON	39K	5%	1/4W
R354	1-249-436-11	CARBON	39K	5%	1/4W
R355	1-249-436-11	CARBON	39K	5%	1/4W
R356	1-249-436-11	CARBON	39K	5%	1/4W
R357	1-249-436-11	CARBON	39K	5%	1/4W
R358	1-249-436-11	CARBON	39K	5%	1/4W
R361	1-249-431-11	CARBON	15K	5%	1/4W (M54)
R361	1-249-432-11	CARBON	18K	5%	1/4W (M43)
R362	1-249-431-11	CARBON	15K	5%	1/4W (M54)
R362	1-249-432-11	CARBON	18K	5%	1/4W (M43)
R363	1-249-431-11	CARBON	15K	5%	1/4W (M54)
R363	1-249-432-11	CARBON	18K	5%	1/4W (M43)
R364	1-249-431-11	CARBON	15K	5%	1/4W (M54)
R364	1-249-432-11	CARBON	18K	5%	1/4W (M43)
R365	1-249-438-11	CARBON	56K	5%	1/4W
R366	1-249-438-11	CARBON	56K	5%	1/4W
R367	1-249-438-11	CARBON	56K	5%	1/4W
R368	1-249-438-11	CARBON	56K	5%	1/4W
R369	1-249-419-11	CARBON	1.5K	5%	1/4W
R370	1-249-419-11	CARBON	1.5K	5%	1/4W
R371	1-249-419-11	CARBON	1.5K	5%	1/4W
R372	1-249-419-11	CARBON	1.5K	5%	1/4W
R373	1-247-887-00	CARBON	220K	5%	1/4W
R374	1-247-887-00	CARBON	220K	5%	1/4W
R375	1-249-409-11	CARBON	220	5%	1/4W
R376	1-249-409-11	CARBON	220	5%	1/4W
R377	1-249-409-11	CARBON	220	5%	1/4W
R378	1-249-409-11	CARBON	220	5%	1/4W
R379	1-249-425-11	CARBON	4.7K	5%	1/4W
R380	1-249-425-11	CARBON	4.7K	5%	1/4W
R381	1-249-425-11	CARBON	4.7K	5%	1/4W
R382	1-249-425-11	CARBON	4.7K	5%	1/4W
R383	1-249-413-11	CARBON	470	5%	1/4W
R384	1-249-413-11	CARBON	470	5%	1/4W
R385	1-249-393-11	CARBON	10	5%	1/4W
R386	1-249-393-11	CARBON	10	5%	1/4W
R388	1-249-393-11	CARBON	10	5%	1/4W (M43)
R389	1-249-413-11	CARBON	470	5%	1/4W (M54)
R390	1-249-413-11	CARBON	470	5%	1/4W (M54)
R395	1-249-429-11	CARBON	10K	5%	1/4W (M43)
R396	1-247-848-11	CARBON	5.1K	5%	1/4W
R397	1-247-848-11	CARBON	5.1K	5%	1/4W
R398	1-247-848-11	CARBON	5.1K	5%	1/4W
R399	1-247-848-11	CARBON	5.1K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
		< VIBRATOR >			
X327	1-579-314-11	VIBRATOR, CRYSTAL (22.5792MHz)			

*	A-4649-107-A	MOTOR VOL BOARD, COMPLETE (M54)			

*	4-922-980-01	HOLDER (LED) (M54)			
		< CAPACITOR >			
C451	1-124-443-00	ELECT	100uF	20%	10V (M54)
C452	1-124-443-00	ELECT	100uF	20%	10V (M54)
C471	1-124-443-00	ELECT	100uF	20%	10V (M54)
C472	1-124-768-11	ELECT	4.7uF	20%	50V (M54)
C473	1-164-159-11	CERAMIC	0.1uF		50V (M54)
		< CONNECTOR >			
* CN451	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P (M54)			
* CN453	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P (M54)			
CN472	1-506-468-11	CONNECTOR 3P, MALE (M54)			
		< DIODE >			
D471	8-719-970-49	DIODE BR4361F			
		LINE OUT PHONE LEVEL) (M54)			
		< IC >			
IC451	8-759-981-89	IC RC4556S (M54)			
IC471	8-759-962-08	IC BA6208 (M54)			
		< RESISTOR >			
R451	1-249-435-11	CARBON	33K	5%	1/4W (M54)
R452	1-249-435-11	CARBON	33K	5%	1/4W (M54)
R453	1-249-432-11	CARBON	18K	5%	1/4W (M54)
R454	1-249-432-11	CARBON	18K	5%	1/4W (M54)
R455	1-249-422-11	CARBON	2.7K	5%	1/4W (M54)
R456	1-249-422-11	CARBON	2.7K	5%	1/4W (M54)
R457	1-249-429-11	CARBON	10K	5%	1/4W (M54)
R458	1-249-429-11	CARBON	10K	5%	1/4W (M54)
R461	1-249-399-11	CARBON	33	5%	1/4W (M54)
R462	1-249-399-11	CARBON	33	5%	1/4W (M54)
R471	1-249-411-11	CARBON	330	5%	1/4W (M54)
R472	1-249-417-11	CARBON	1K	5%	1/4W (M54)
R473	1-249-417-11	CARBON	1K	5%	1/4W (M54)
		< VARIABLE RESISTOR >			
RV451	1-241-810-11	RES, VAR, CARBON 10K/10K			
		(LINE OUT PHONE LEVEL) (M54)			

P. SW

POWER

Ref. No.	Part No.	Description	Remark
*	1-642-887-21	P. SW BOARD *****	
		< SWITCH >	
S491	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)	

*	1-642-883-21	POWER BOARD *****	
		< CAPACITOR >	
C201	1-124-572-11	ELECT 100uF 20% 63V	
C202	1-126-059-11	ELECT 10uF 20% 50V	
C203	1-124-556-11	ELECT 2200uF 20% 16V	
C204	1-126-937-11	ELECT 4700uF 20% 16V	
C221	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
* CN201	1-564-511-11	PLUG, CONNECTOR 8P	
* CN203	1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P	
		< DIODE >	
D201	8-719-200-02	DIODE 10E2 (M43:E, Saudi Arabia)	
D201	8-719-200-82	DIODE 11ES2 (EXCEPT M54/M43:E, Saudi Arabia)	
D202	8-719-110-03	DIODE RD7.5ES-B2	
D203	8-719-200-02	DIODE 10E2 (M43:E, Saudi Arabia)	
D203	8-719-200-82	DIODE 11ES2 (EXCEPT M54/M43:E, Saudi Arabia)	
D204	8-719-200-02	DIODE 10E2 (M43:E, Saudi Arabia)	
D204	8-719-200-82	DIODE 11ES2 (EXCEPT M54/M43:E, Saudi Arabia)	
D205	8-719-200-02	DIODE 10E2 (M43:E, Saudi Arabia)	
D205	8-719-200-82	DIODE 11ES2 (EXCEPT M54/M43:E, Saudi Arabia)	
D206	8-719-200-02	DIODE 10E2 (M43:E, Saudi Arabia)	
D206	8-719-200-82	DIODE 11ES2 (EXCEPT M54/M43:E, Saudi Arabia)	
		< IC >	
IC201	8-759-633-42	IC M5293L	
		< TRANSISTOR >	
Q201	8-729-119-76	TRANSISTOR 2SA1175-HFE	

Ref. No.	Part No.	Description	Remark
		< RESISTOR >	
R201	1-249-435-11	CARBON 33K 5% 1/4W	
R202	1-249-438-11	CARBON 56K 5% 1/4W	
R203	1-249-429-11	CARBON 10K 5% 1/4W	
		< SWITCH >	
AS201	1-571-722-11	SWITCH, VOLTAGE SELECTION (E, Saudi Arabia)	

		MISCELLANEOUS *****	
A23	1-558-946-21	CORD, POWER (M54:UK)	
A23	1-574-358-31	CORD, POWER (WITH CONNECTOR) (Australian)	
A23	1-575-651-21	CORD, POWER (AEP, Italian, Saudi Arabia)	
A23	1-575-653-21	CORD, POWER (E)	
A23	1-590-379-11	CORD, POWER (M43:UK)	
28	1-575-160-11	WIRE, FLAT TYPE (22 CORE)	
A32	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
A32	1-569-008-11	ADAPTER, CONVERSION 2P (Saudi Arabia)	
* 110	1-452-538-11	MAGNET	
156	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
A157	8-848-144-11	DEVICE, OPTICAL KSS-240A	
D471	8-719-970-49	DIODE BR4361F (M54)	
M101	X-4917-523-3	BASE (OUTSERT) ASSY	
M102	X-4917-504-1	MOTOR ASSY	
M191	A-4604-363-A	MOTOR (L) ASSY	
AT901	1-449-922-11	TRANSFORMER, POWER (EXCEPT E, Saudi Arabia)	
AT901	1-449-923-11	TRANSFORMER, POWER (E, Saudi Arabia)	

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
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ACCESSORIES & PACKING MATERIALS

1-465-867-11 REMOTE COMMANDER (RM-D597) (M54)
1-558-271-11 CORD, CONNECTION (MADE IN FRANCE)
1-559-533-11 CORD, CONNECTION (MADE IN JAPAN)
2-181-754-01 COVER, BATTERY (M54)

3-754-665-11 MANUAL, INSTRUCTION (English/French
Spanish/Portuguese) (M54:AEP, E, UK)
3-754-665-41 MANUAL, INSTRUCTION (Dutch/German
Italian/Swedish) (M54:AEP)

* 4-922-998-01 CUSHION (MADE IN JAPAN)
* 4-927-355-03 CUSHION (MADE IN FRANCE)

* 4-948-882-31 INDIVIDUAL CARTON
(MADE IN FRANCE M43:AEP, Italian, UK)
* 4-948-882-41 INDIVIDUAL CARTON
(MADE IN FRANCE M54:AEP, UK)
* 4-949-971-21 INDIVIDUAL CARTON
(MADE IN JAPAN M43:AEP, Australian)
* 4-949-971-41 INDIVIDUAL CARTON
(MADE IN JAPAN M54:E, AEP)

HARDWARE LIST

#1 17-682-548-09 SCREW +BVTT 3X8 (S)
#2 27-682-547-09 SCREW +B 3X6
#3 37-682-547-04 SCREW +BVTT 3X6 (S)
#4 47-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S
#5 57-621-255-15 SCREW +P 2X3
#6 67-685-134-19 SCREW +BTP 2.6X8 TYPE2 N-S
#7 77-621-775-10 SCREW +B 2.6X4

CDP-C325M/C422M

SERVICE MANUAL

*AEP Model
UK Model
E Model
Australian Model*



Photo : CDP-C325M

Model Name Using Similar Mechanism	CDP-C225/C325
Optical Pick-up Block Type	BU-5BD8B

SPECIFICATIONS

	CDP-C325M	CDP-C422M
System	Compact disc digital audio system	
Laser	Semiconductor laser ($\lambda = 780 \text{ nm}$) Emission duration: continuous	
Laser output	Max. $44.6 \mu\text{W}^*$ * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.	
Frequency response	2 Hz — 20 kHz ($\pm 0.5 \text{ dB}$)	
Signal to noise ratio	More than 100 dB	
Dynamic range	More than 98 dB	
Harmonic distortion	Less than 0.005% (1 kHz)	
Channel separation	More than 100 dB (1 kHz)	
Wow and flutter	Below measurable limit	
Outputs	Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms	
LINE OUT (phono jacks)		
HEADPHONES (stereo phone jack)	Output level 0 — 10 mW (variable) (at 32 ohms)	

General

Power requirements	UK, Australian model: 240 V AC, 50/60 Hz AEP model: 220 — 230 V AC, 50/60 Hz E model: 110 — 120 or 220 — 240 V AC adjustable, 50/60 Hz
Power consumption	12 W
Dimensions (not including projecting parts and controls)	Approx. 355 × 120 × 385 mm (w/h/d) (14 × 4¾ × 15¼ inches)
Weight	Approx. 5.0 kg (11 lbs 01 oz)

Supplied accessories

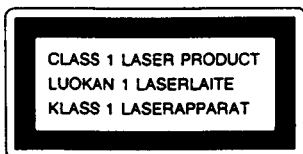
	CDP-C325M	CDP-C422M
Audio signal connecting cord	1 (phono plug × 2 ↔ phono plug × 2)	
Remote commander	1 (RM-D325)	
Sony SUM-3 (NS) batteries	2	

Design and specifications subject to change without notice.



COMPACT DISC PLAYER
SONY®

For the United Kingdom and European Countries.



This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts. The flexible board is easily damaged and should be handled with care.

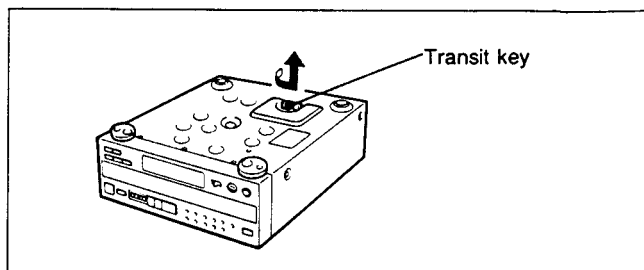
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30cm away from the objective lens.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Note on the Transit Key

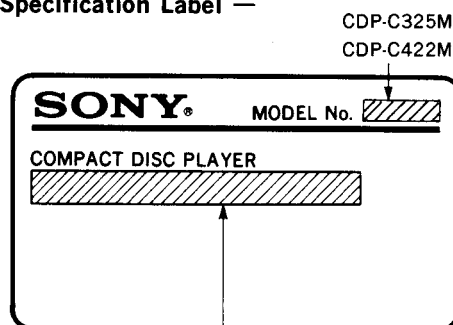


The transit key on the bottom exterior of the unit protects the optical system against shock during transportation. Before operating the CD player, be sure to remove the key by following the instructions on the label, and store it in a safe place.

When transporting the unit, replace the key in its original hole and lock it in place.

MODEL IDENTIFICATION

— Specification Label —



AEP model: AC: 220-230V~50/60Hz
UK, AUS model: AC: 240V~50/60Hz
E model: AC: 110-120, 220-240V~50/60Hz 12W

• AUS: Australian model

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

1. Laser Diode Properties

- Material: GaAlAs
- Wavelength: 780 nm
- Emission Duration: continuous
- Laser Output Power: less than 44.6 μ W*

* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optical Pick-up Block (including APC board).

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

ADVARSEL!!

Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 25 cm fra den optiske pick-up.

1. Laser-dioe data

- Materiale: GaAlAs
- Bølgelængde: 780 nm
- Udstråling: Kontinuerlig
- Laseroutput: Max. 0,4 mW*

* Målt i 1,6 mm afstand fra overfladen af objektiv-linsen på den optiske pick-up enhed.

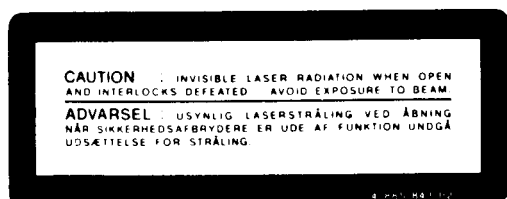
- Klassifikation: Klasse IIIb.

2. Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laser-dioden) bryder ned, skal hele den optiske pick-up enhed (incl. APC printkortet) udskiftes.

LASER ADVARSEL MÆRKNING

Følgende mærkning findes indvendig i apparatet:

1. Advarsel Mærkning

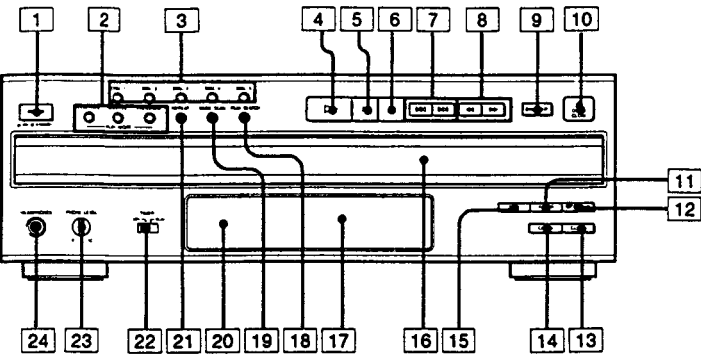


VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkömätöntä) silmille vaarallista lasersäteilyä.

SECTION 1
GENERAL

This section is extracted from instruction manual.

1-1. LOCATION AND CONTROLS
Front Panel

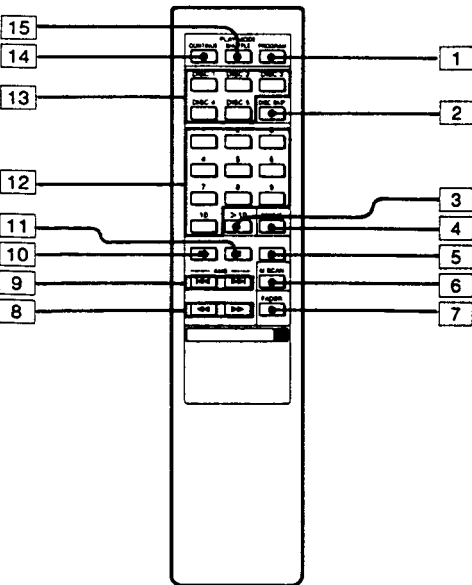


Refer to the pages indicated in () for details.

- 1 POWER switch (page 18)
- 2 PLAY MODE buttons
CONTINUE button (page 18)
SHUFFLE button (page 28)
PROGRAM button (page 30)
- 3 DISC 1-5 buttons (page 18)
- 4 ► (play) button (page 18)
- 5 || (pause) button (page 18)
- 6 ■ (stop) button (page 18)
- 7 ◀◀/▶▶ (AMS*) buttons (page 24)
- 8 ◀◀/▶▶ (manual search) buttons (page 26)
- 9 DISC SKIP button (page 18)
- 10 ▲ OPEN/CLOSE button (page 18)
- 11 FADER button (page 44)
- 12 EDIT/TIME FADE button (page 36)
- 13 CLEAR (program clear) button (page 34)
- 14 CHECK (program check) button (page 34)
- 15 TIME button (page 22)
- 16 Disc tray (page 18)
- 17 Display window
- 18 PEAK SEARCH button (page 48)
- 19 MUSIC SCAN button (page 42)
- 20 Remote sensor (CDP-C325M only)
- 21 REPEAT button (page 42)
- 22 TIMER switch (CDP-C325M only) (page 50)
- 23 PHONE LEVEL control (CDP-C325M only) (page 18)
- 24 HEADPHONES jack (CDP-C325M only)

* AMS is the abbreviation of Automatic Music Sensor.

Remote Commander



Refer to the pages indicated in () for details.

CDP-C325M only

- 1 PROGRAM button (page 30)
- 2 DISC SKIP button (page 18)
- 3 > 10 (over 10) button (page 24)
- 4 REPEAT button (page 42)
- 5 ■ (stop) button (page 18)
- 6 MUSIC SCAN button (page 42)
- 7 FADER button (page 44)
- 8 ◀◀/▶▶ (manual search) buttons (page 26)
- 9 ◀◀/▶▶ (AMS) buttons (page 24)
- 10 ► (play) button (page 18)
- 10 || (pause) button (page 18)
- 11 Numeric buttons (1-10) (page 24)
- 13 DISC 1-5 buttons (page 18)
- 14 CONTINUE button (page 18)
- 15 SHUFFLE button (page 28)

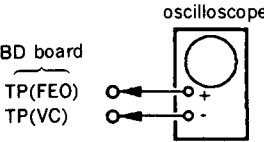
SECTION 2

ELECTRICAL BLOCK CHECKING

Note :

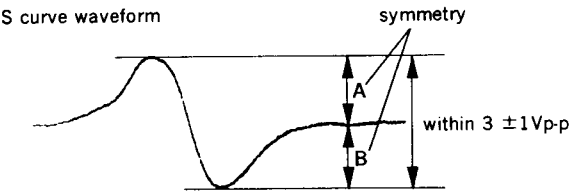
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



Procedure :

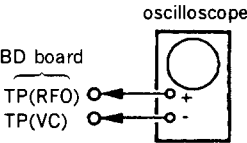
1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 1V_{p-p}$.



5. After check, remove the lead wire connected in step 2.

Note : • Try to mesure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

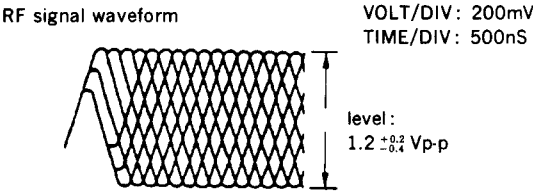


Procedure :

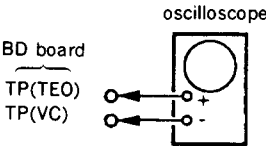
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

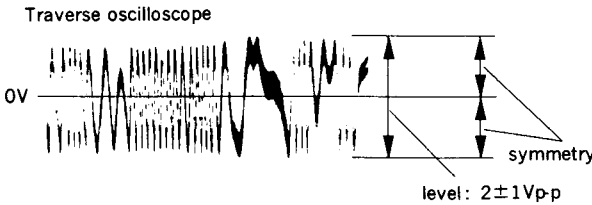


E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the osilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

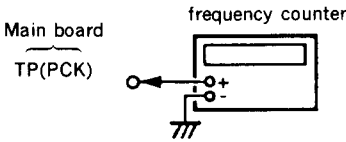


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point (PCK) with lead wire.
2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.



Focus/Tracking Gain

This gain has a margin, so even if it is slightly off.

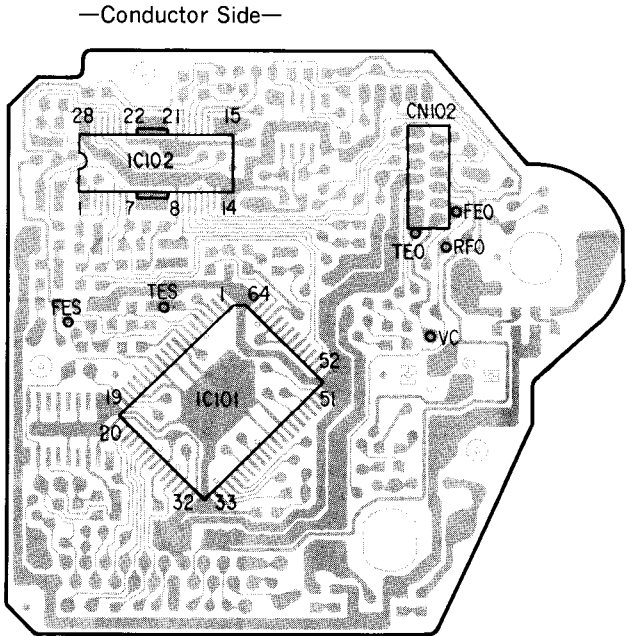
There is no problem.

Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Adjustment Locations :

[BD Board]



SECTION 3
DIAGRAMS

Frequency Check

Frequency counter to test point (PCK) with lead

board (PCK)

frequency counter

ch on.

ing on frequency counter is 4.3218MHz.

n

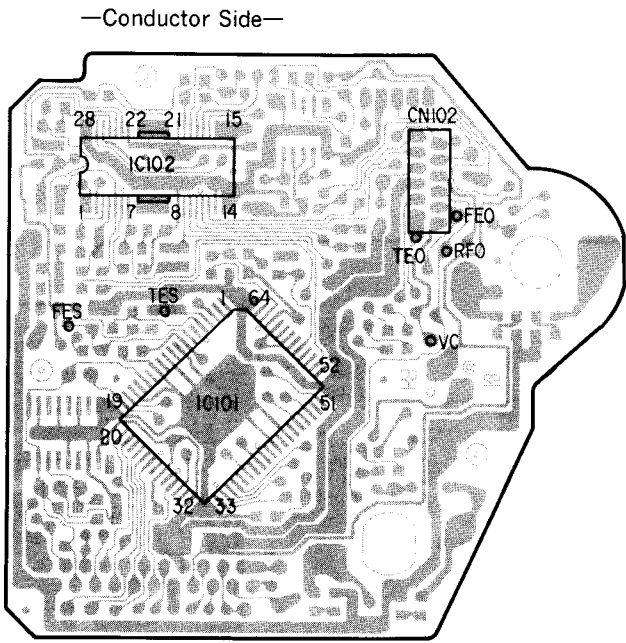
in, so even if it is slightly off.

form, this adjustment.

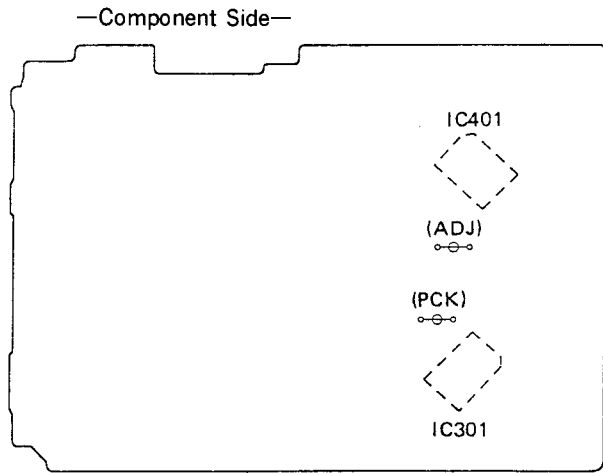
ould be fixed to mechanical center

ved and do not know original position.

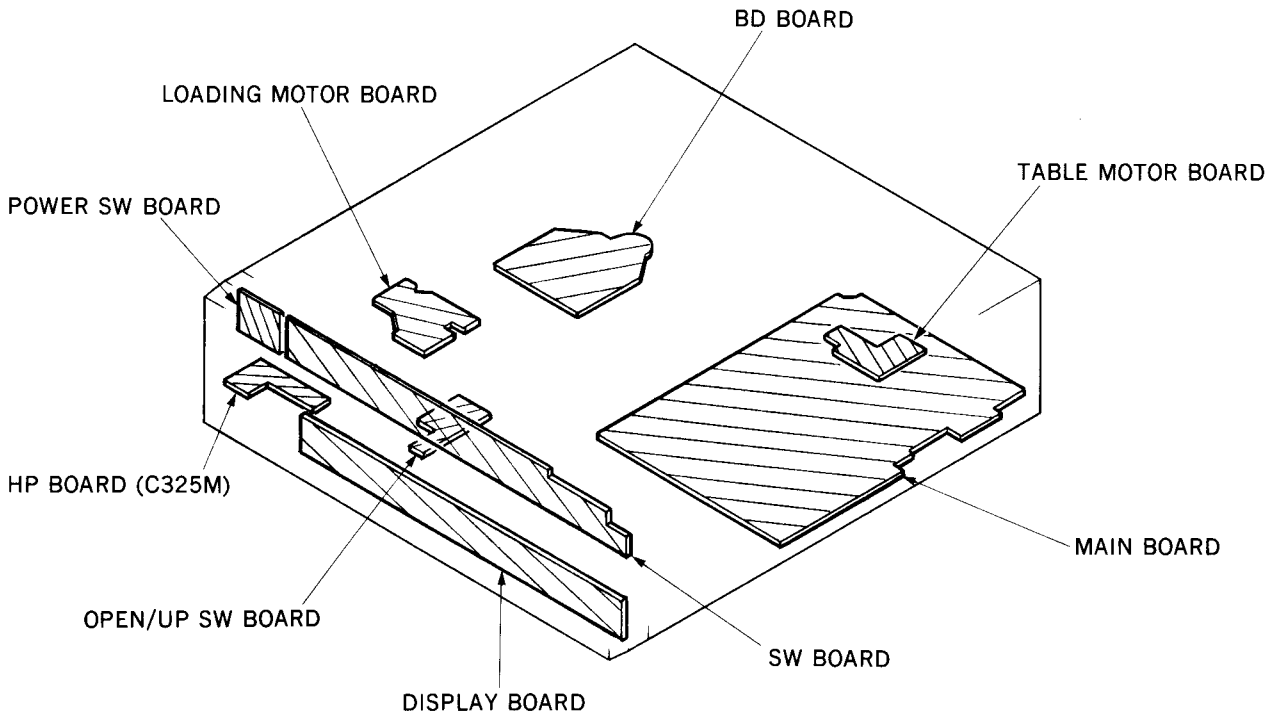
Adjustment Locations :
[BD Board]



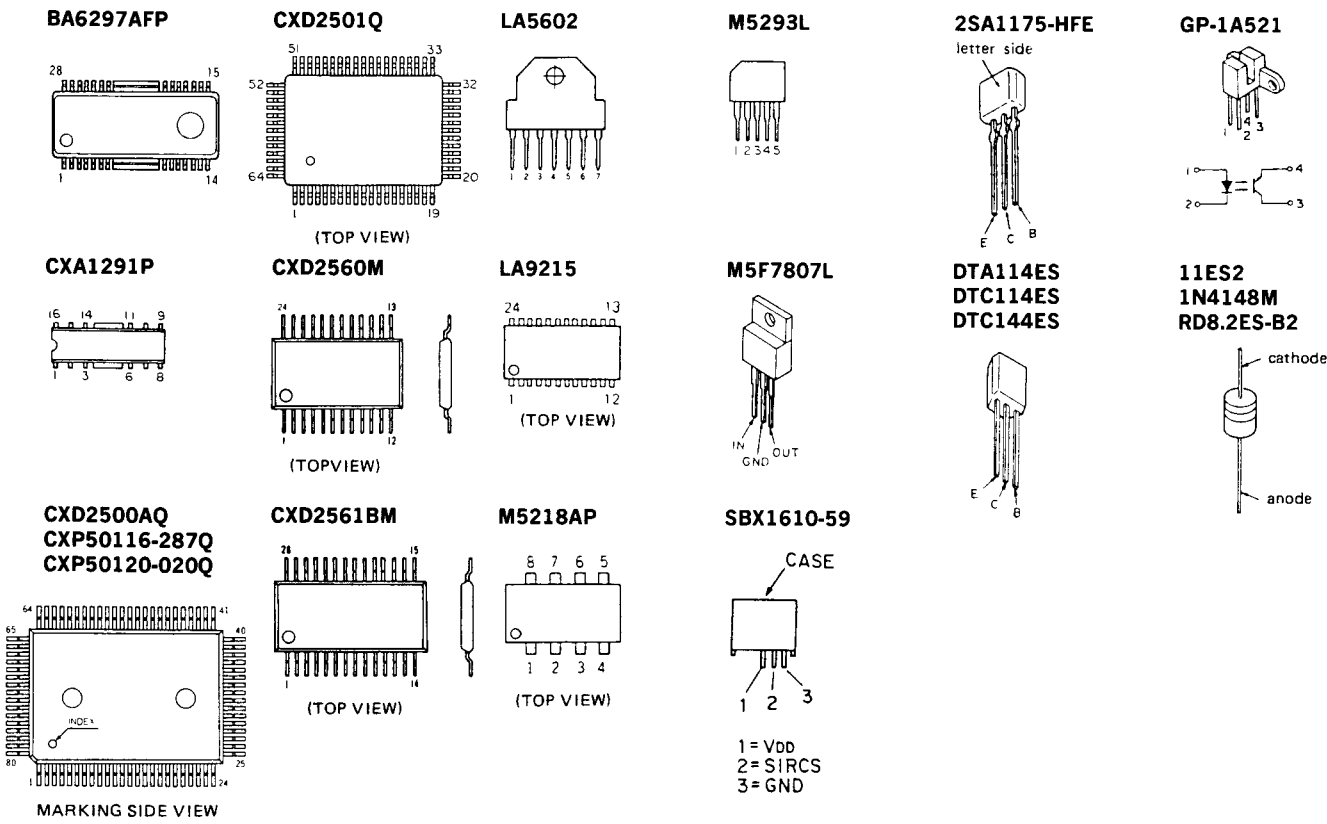
[MAIN Board]



3-1. CIRCUIT BOARDS LOCATION

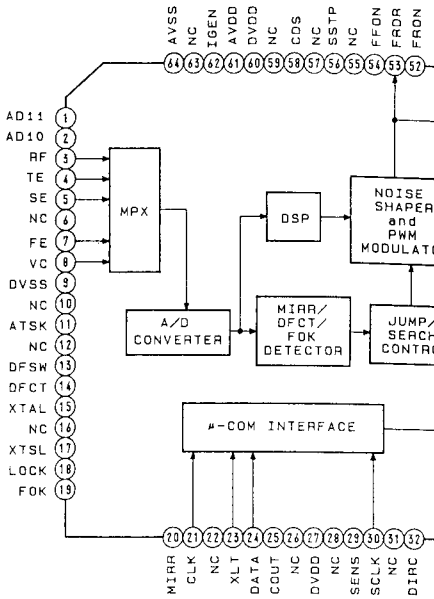


3-2. SEMICONDUCTOR LEAD LAYOUTS

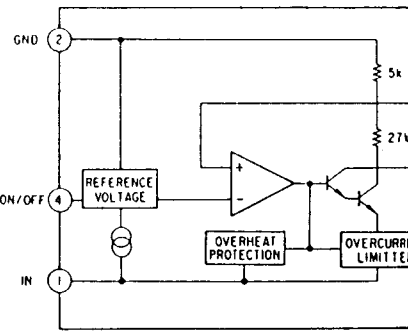


• IC Block Diagrams

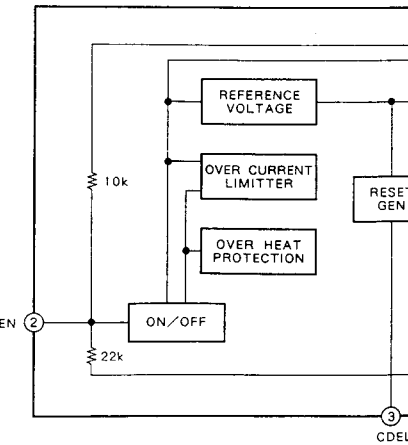
IC101 CXD2501Q



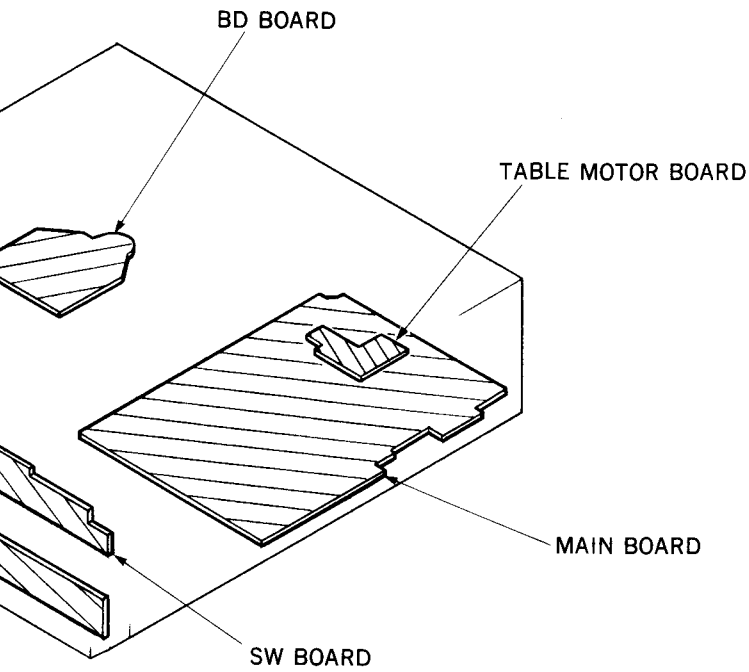
IC201 M5293L



IC202 LA5602



SECTION 3 DIAGRAMS



BOARD

02



5

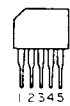


BAP



VIEW)

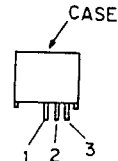
M5293L



M5F7807L

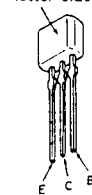


SBX1610-59

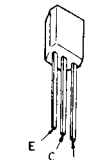


1 = VDD
2 = S1RCS
3 = GND

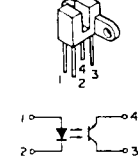
2SA1175-HFE



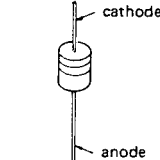
DTA114ES
DTC114ES
DTC144ES



GP-1A521

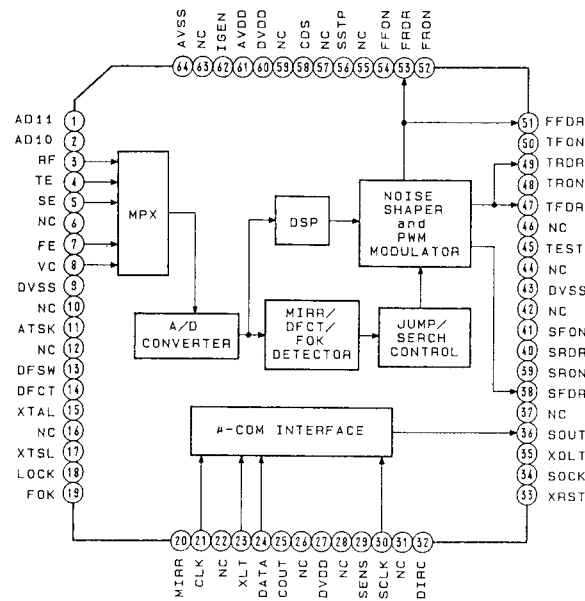


11ES2
1N4148M
RD8.2ES-B2

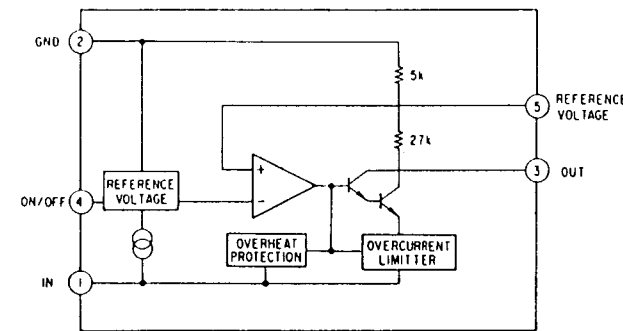


• IC Block Diagrams

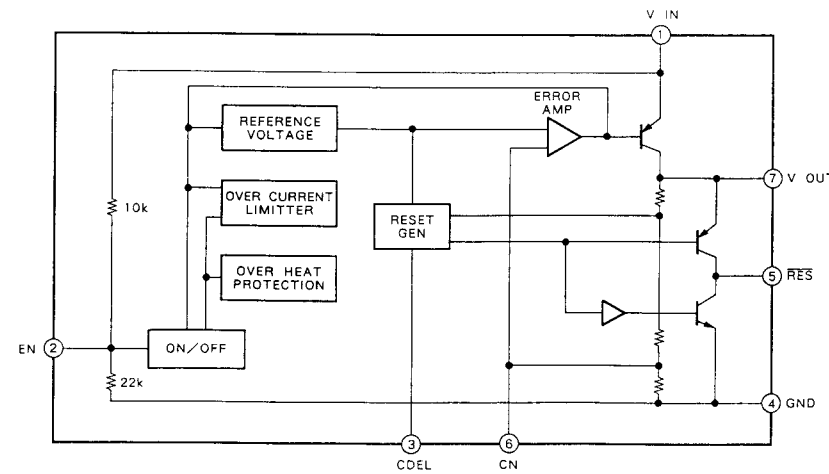
IC101 CXD2501Q



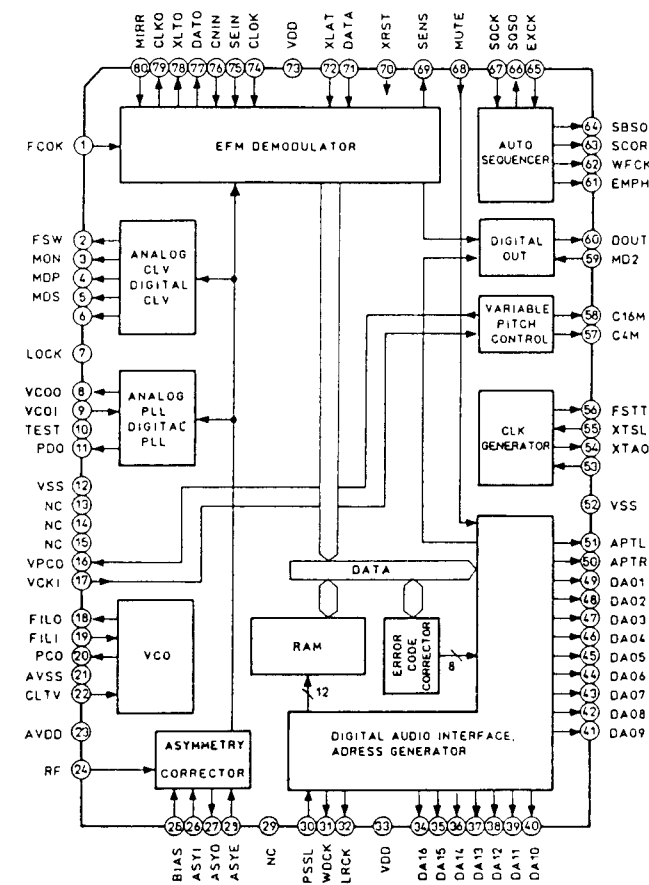
IC201 M5293L



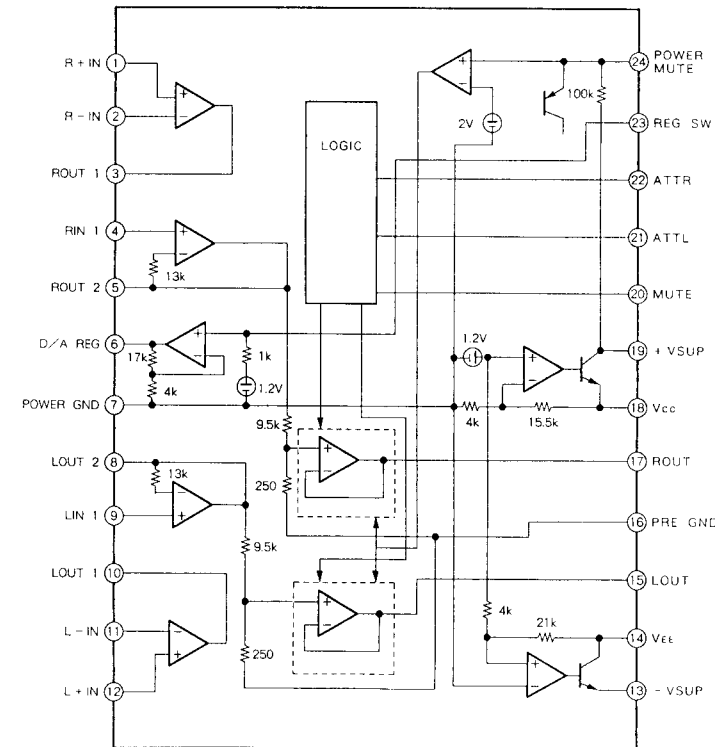
IC202 LA5602



IC301 CXD2500AQ



IC306 LA9215



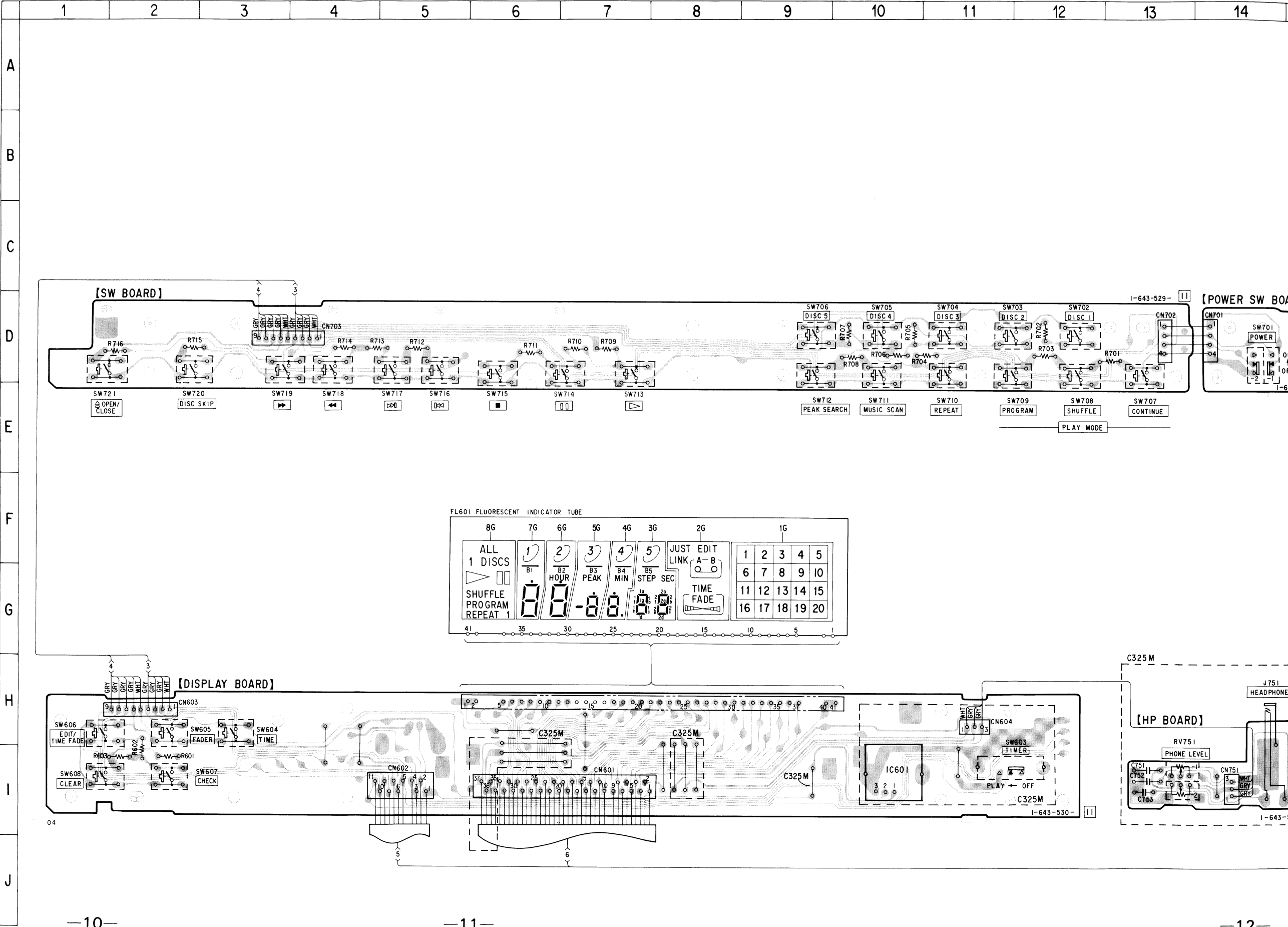
• Semiconductor Location

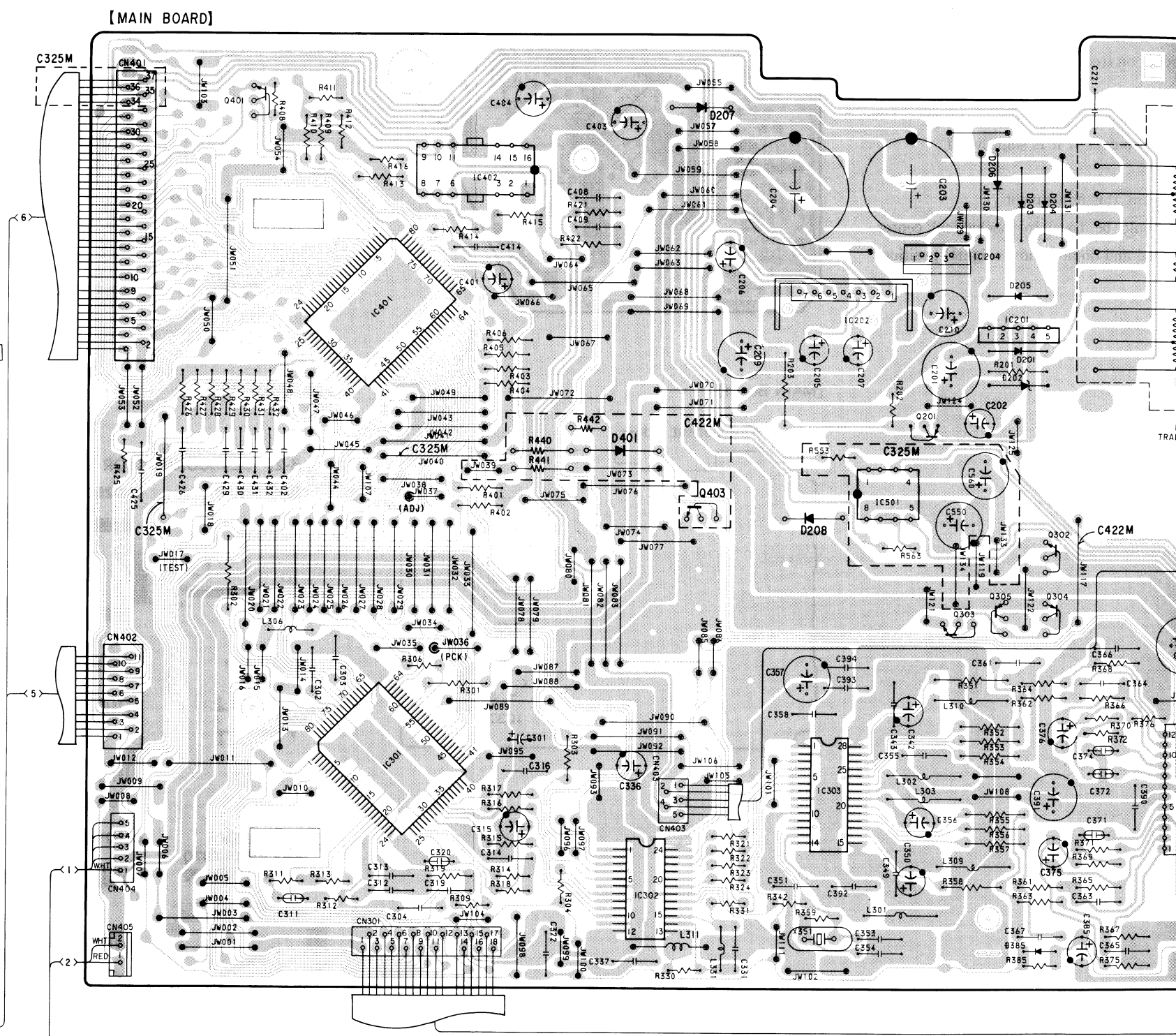
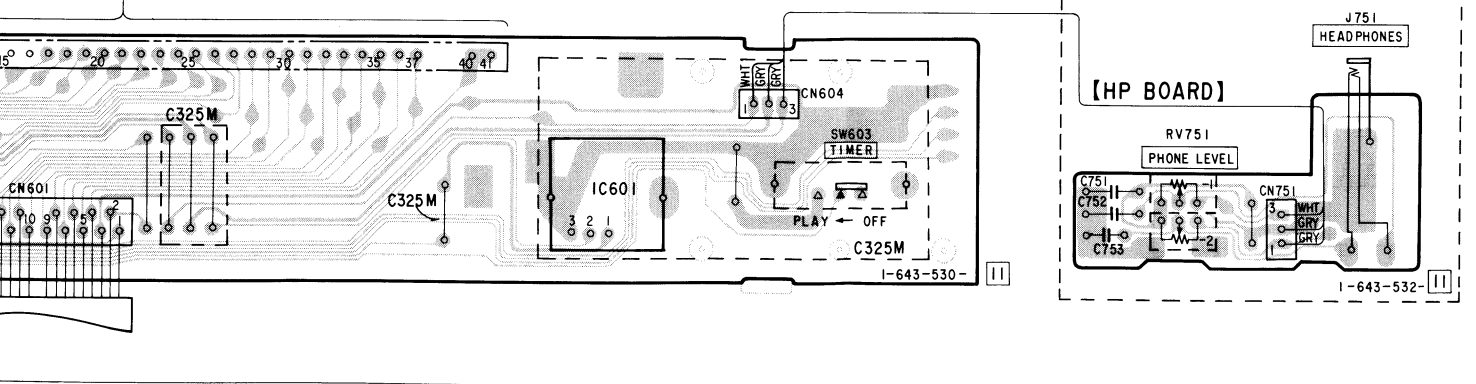
Ref. No.	Location
D201	D-23
D202	E-23
D203	C-23
D204	C-23
D205	D-23
D206	C-23
D207	C-20
D208	F-21
D385	I-23
D401	E-20
D701	G-30
IC101	C-28
IC102	B-28
IC201	D-23
IC202	D-22
IC204	D-22
IC301	H-18
IC302	I-20
IC303	H-21
IC306	H-24
IC401	D-18
IC402	C-19
IC501	F-22
IC601	I-10
Q201	E-22
Q302	F-23
Q303	G-22
Q304	G-23
Q305	G-23
Q401	C-17
Q403	F-20

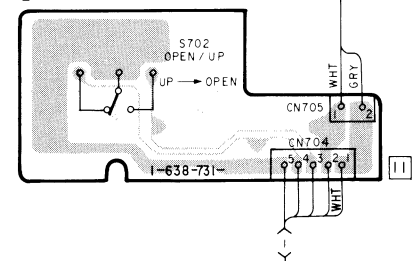
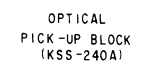
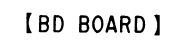
Note:

- — : parts extracted from the component side.
- : Through hole.
- ▨ : Pattern on the side which is seen.
- ▩ : Pattern of the rear side.

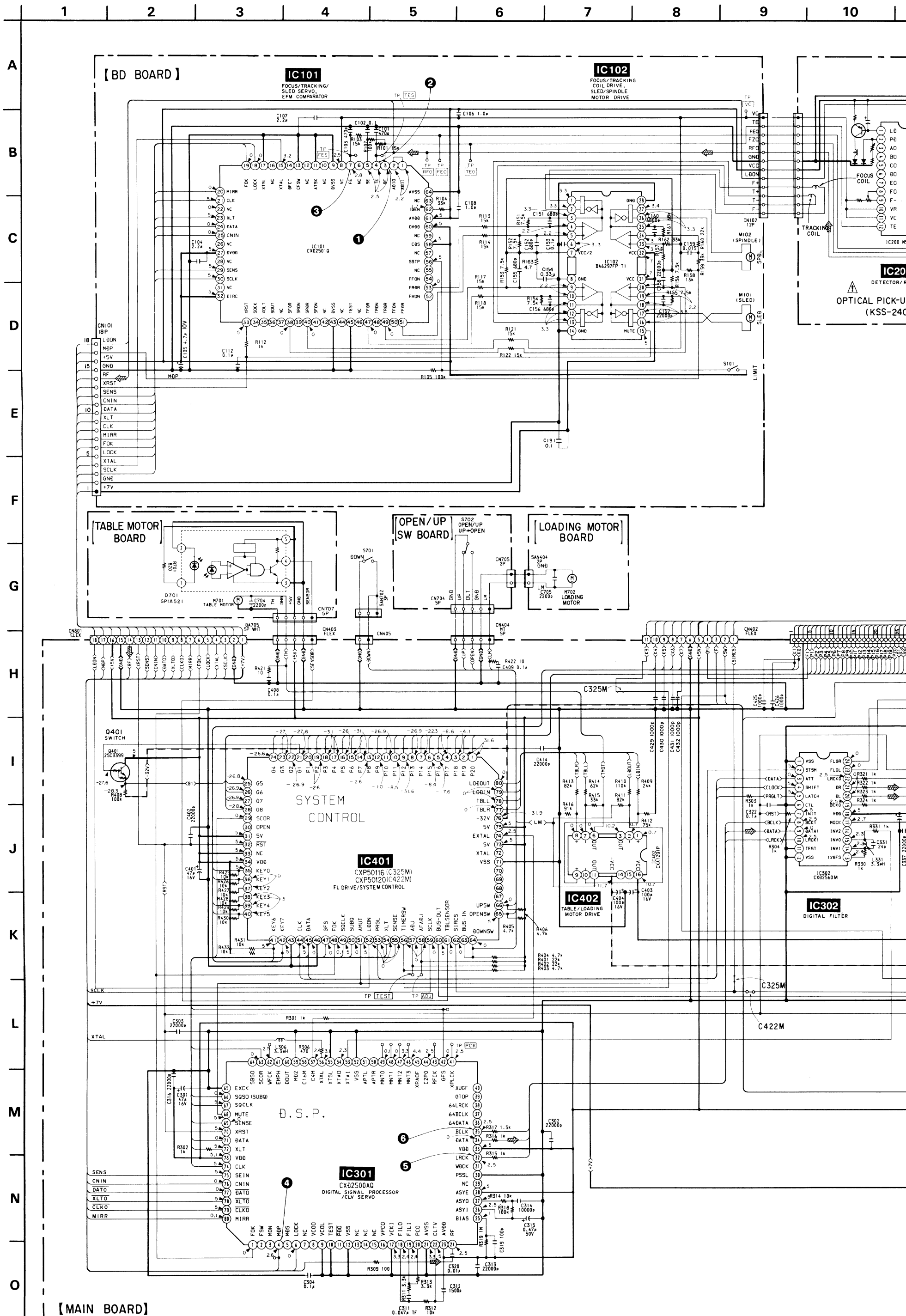
3-3. PRINTED WIRING BOARDS • Refer to page 7 for Semiconductor Lead Layouts.

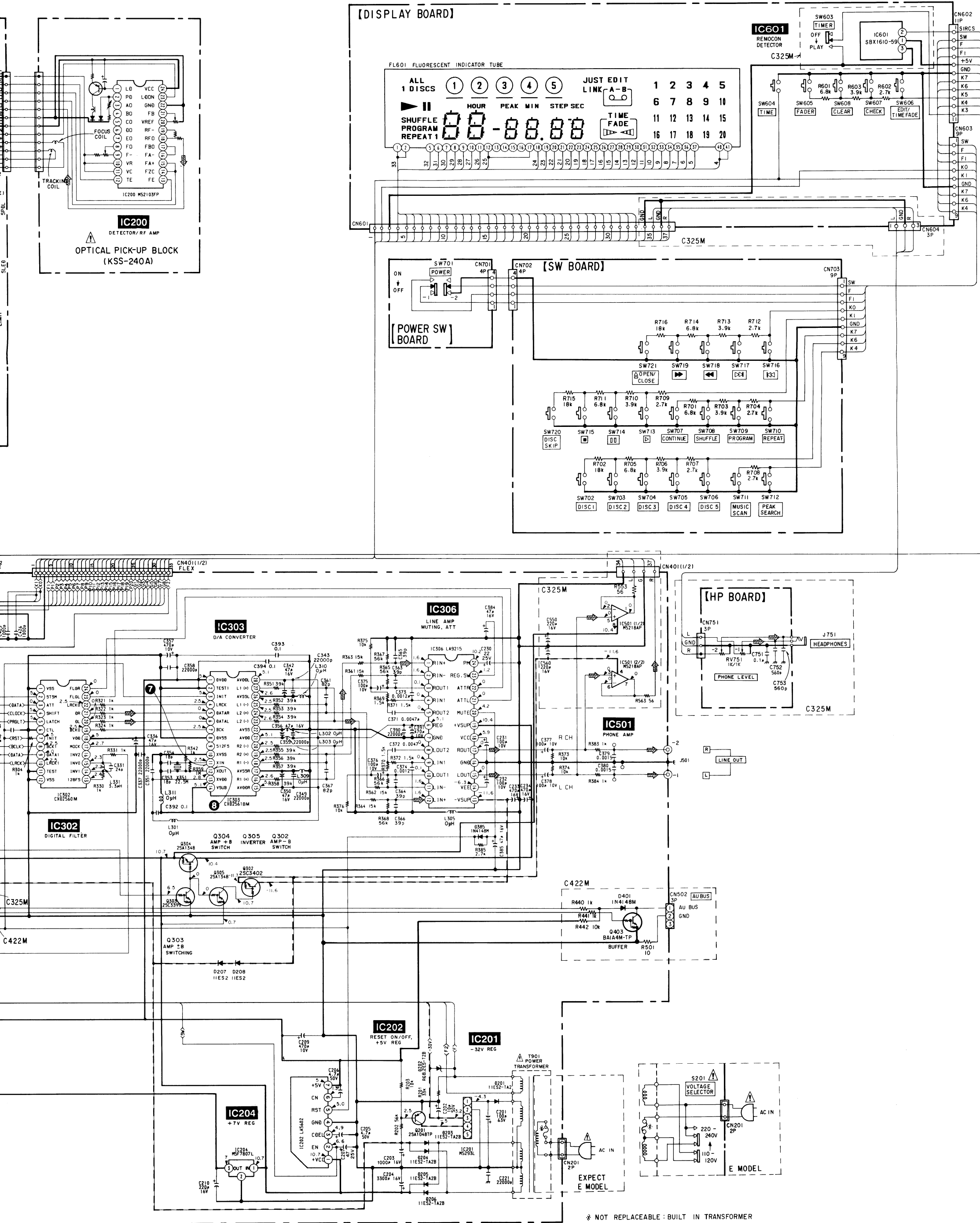


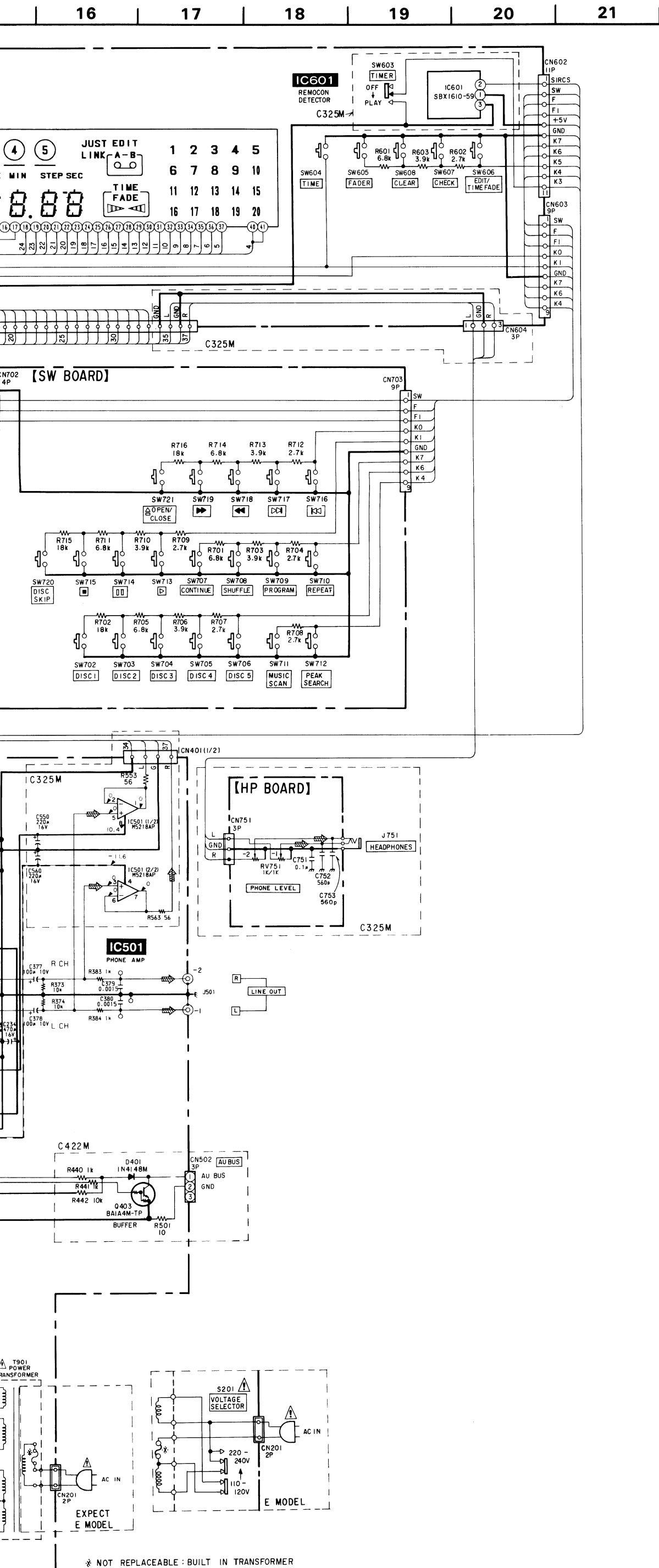




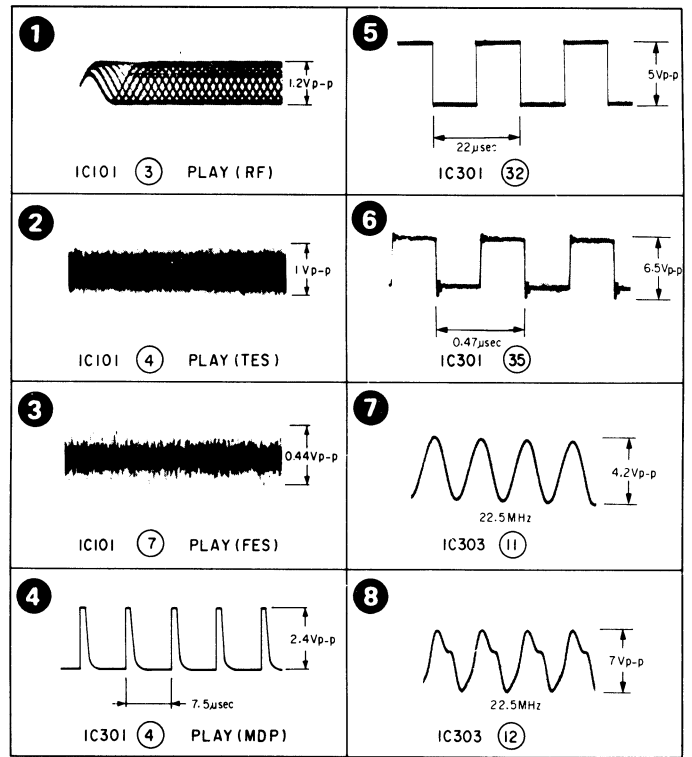
3-4. SCHEMATIC DIAGRAM • Refer to page 8 for IC Block Diagrams.











Waveforms



Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.

Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

-  : B+ Line
-  : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.

 : CD



SECTION 4 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

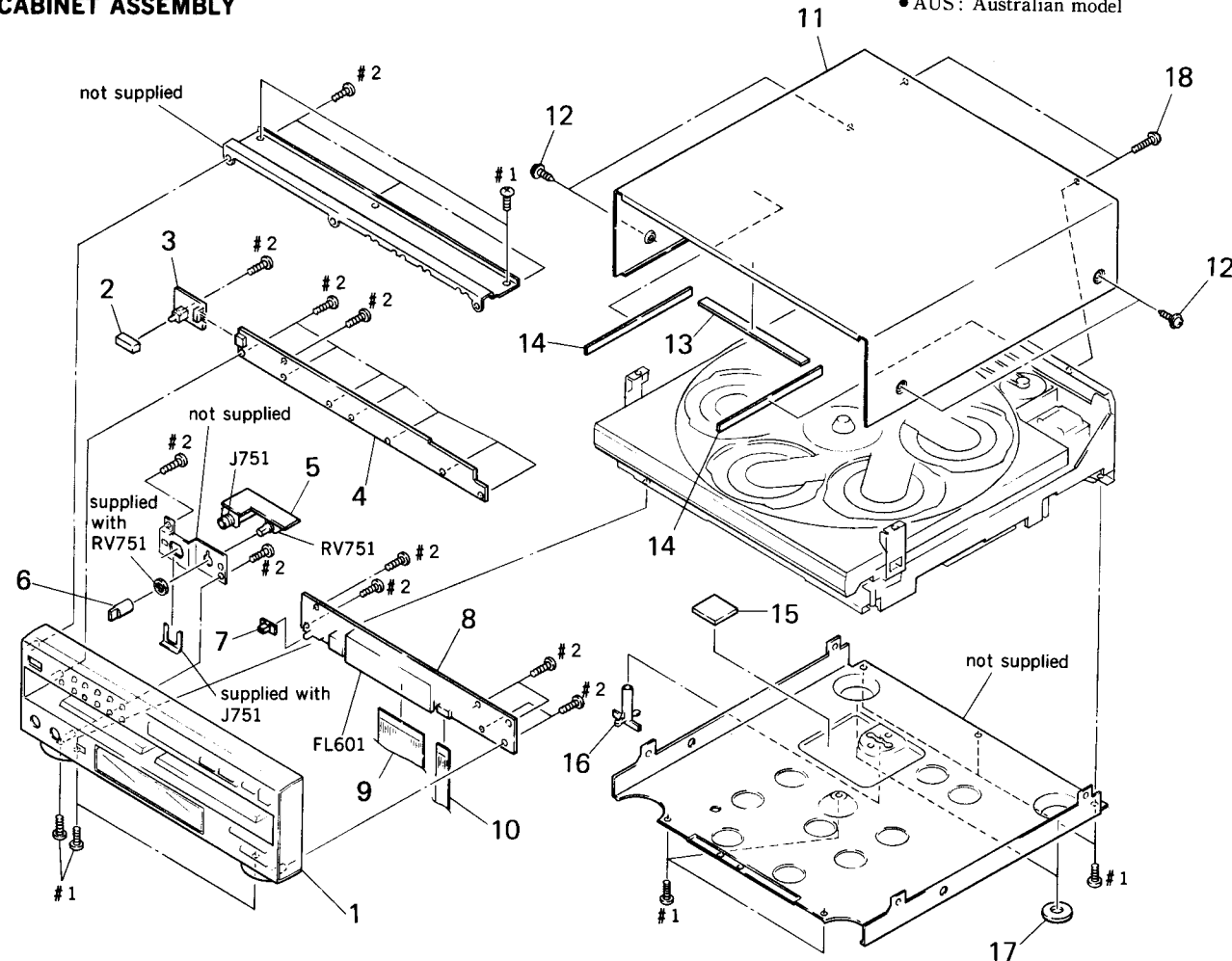
- XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE)...(RED)
Parts Color Cabinet's Color

- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

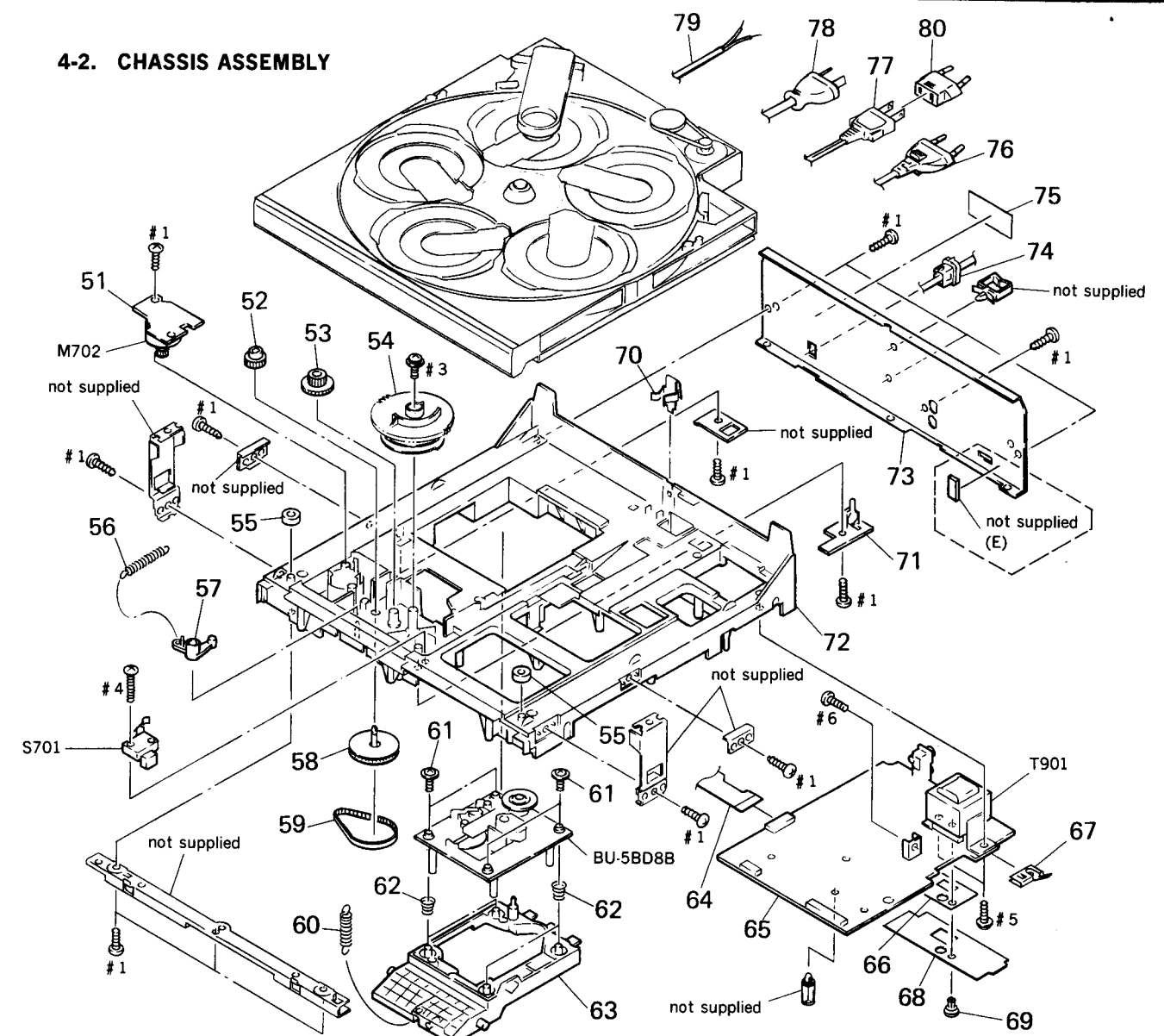
- AUS: Australian model



4-1. CABINET ASSEMBLY












Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4942-549-1	PANEL ASSY. FRONT (C325M)		* 11	4-943-992-01	CASE (C325M)	
1	X-4942-550-1	PANEL ASSY. FRONT (C422M)		* 11	4-943-992-11	CASE (C422M)	
2	4-951-115-01	BUTTON (POWER) (C325M)		12	3-704-366-01	SCREW (CASE) (M3X8)	
2	4-951-115-11	BUTTON (POWER) (C422M)		* 13	4-929-557-01	CUSHION (PANEL)	
* 3	1-643-533-11	POWER SW BOARD		* 14	4-929-561-01	CUSHION (CASE) (C325M)	
* 4	1-643-529-11	SW BOARD		* 15	4-951-946-01	SHEET	
* 5	1-643-532-11	HP BOARD (C325M)		16	4-937-945-01	PLATE (TRANSPORT). LOCK	
6	4-922-531-11	KNOB (A TYPE). LOV (C325M)		17	4-924-410-01	FELT	
7	4-922-518-01	KNOB (TIMER) (C325M)		18	3-703-685-21	SCREW (+BV 3X8)	
* 8	1-643-530-11	DISPLAY BOARD		FL601	1-519-721-11	INDICATOR TUBE. FLUORESCENT	
9	1-690-847-11	WIRE (FLAT TYPE) (37 CORE) (C325M)		J751	1-691-878-11	JACK (LARGE TYPE) (HEAD PHONES) (C325M)	
9	1-690-848-11	WIRE (FLAT TYPE) (33 CORE) (C422M)		RV751	1-241-031-11	RES. VAR. CARBON 1K/1K (PHONE LEVEL) (C325M)	
10	1-690-849-11	WIRE (FLAT TYPE) (11 CORE)					

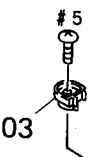
4-2. CHASSIS ASSEMBLY



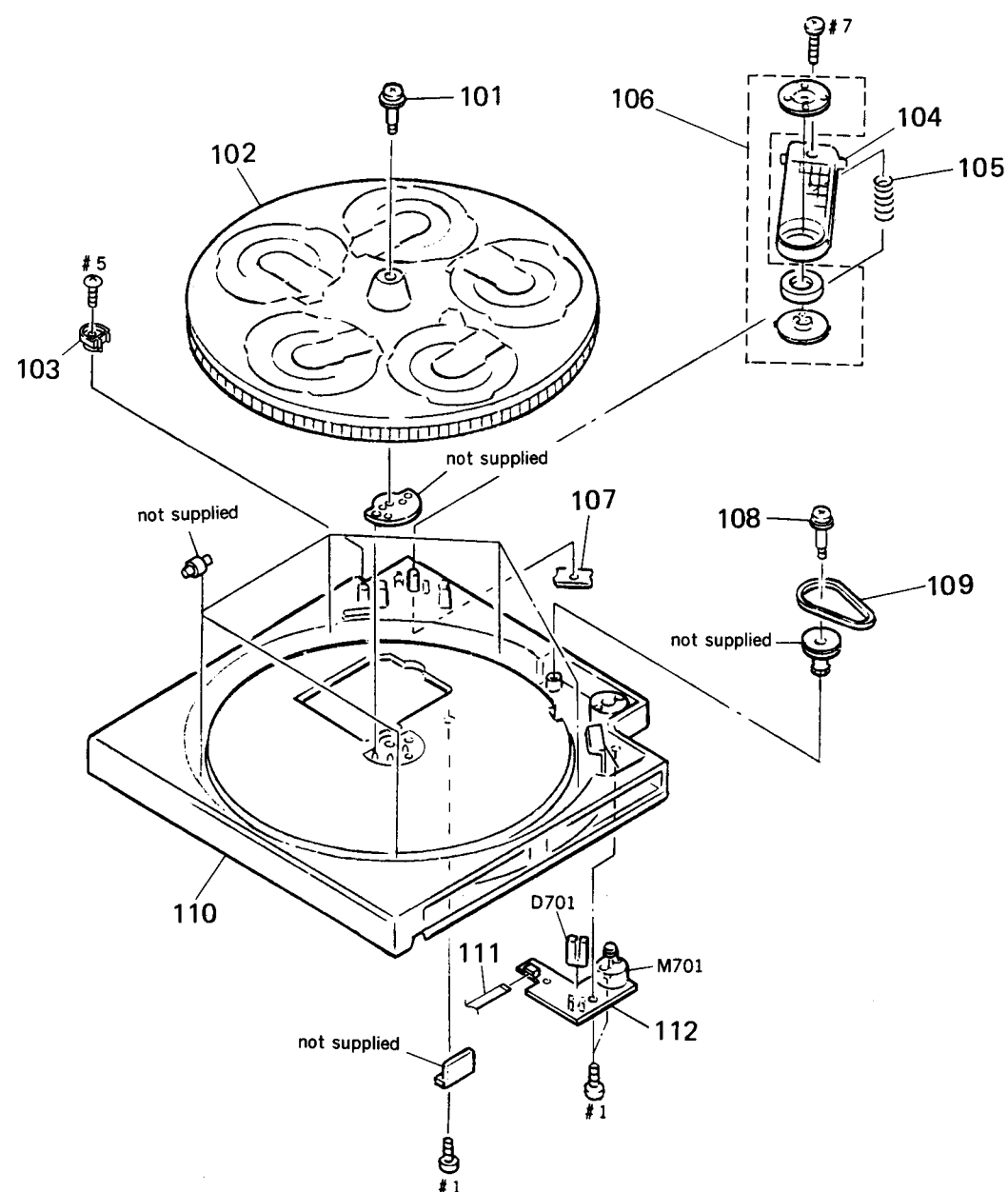
Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	1-638-730-11	LOADING MOTOR BOARD		* 71	1-638-731-11	OPEN/UP SW BOARD	
52	4-934-375-01	GEAR (LOADING B)		* 72	4-943-997-01	CHASSIS	
53	4-934-381-01	GEAR (LOADING C)		* 73	4-949-862-01	PANEL, BACK (C325M:AEP)	
54	4-934-391-01	GEAR (LOADING A)		* 73	4-949-862-11	PANEL, BACK (C325M:UK, AUS)	
* 55	4-951-619-01	CUSHION (A)		* 73	4-949-862-21	PANEL, BACK (C325M:E)	
56	4-924-412-01	SPRING (B). TENSION		* 73	4-949-862-31	PANEL, BACK (C422M:AEP)	
57	4-917-519-01	LEVER, SET		* 73	4-949-862-41	PANEL, BACK (C422M:UK, AUS)	
58	X-4941-529-1	PULLEY ASSY		* 73	4-949-862-51	PANEL, BACK (C422M:E)	
59	4-944-490-01	BELT (TIMING)		* 74	3-703-244-00	BUSHING (2104). CORD (AEP, UK, AUS)	
60	4-937-911-01	SPRING, TENSION		* 74	3-703-571-11	BUSHING (S) (4516). CORD (E)	
61	4-933-134-01	SCREW (+PTPHW M2.6X6)		* 75	4-941-548-01	LABEL, CLASS 1	
62	4-949-385-01	SPRING (D). COIL		 76	1-575-651-21	CORD, POWER (AEP)	
* 63	4-934-373-01	BRACKET (BU)		 77	1-575-653-21	CORD, POWER (E)	
64	1-694-003-11	JAMPER, FILM (WITH TARMINAL)		 78	1-574-358-11	CORD, POWER (WITH CONNECTOR) (C422M:AUS)	
* 65	A-4649-200-A	MAIN BOARD, COMPLETE (C422M:AEP, UK, AUS)		 78	1-574-358-31	CORD, POWER (WITH CONNECTOR) (C325M:AUS)	
* 65	A-4649-208-A	MAIN BOARD, COMPLETE (C422M:E)		 79	1-558-946-21	CORD, POWER (C325M:UK)	
* 65	A-4649-209-A	MAIN BOARD, COMPLETE (C325M:AEP, UK, AUS)		 79	1-590-379-11	CORD, POWER (C422M:UK)	
* 65	A-4649-213-A	MAIN BOARD, COMPLETE (C325M:E)		 80	1-569-007-11	ADAPTER, CONVERSION 2P (C325M:E)	
* 66	4-951-933-01	SHEET, INSULATING (C325M:AEP, UK, AUS)		M702	A-4604-834-A	MOTOR ASSY, LOADING	
* 67	4-944-581-01	PLATE, GROUND		S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR) (DOWN)	
* 68	4-944-178-01	SHEET (INSULATING)		 T901	1-449-955-11	TRANSFORMER, POWER (EXCEPT E)	
69	3-531-576-11	RIVET		 T901	1-449-956-11	TRANSFORMER, POWER (E)	
* 70	4-943-996-01	SPRING, LEAF					

4-3. TRAY



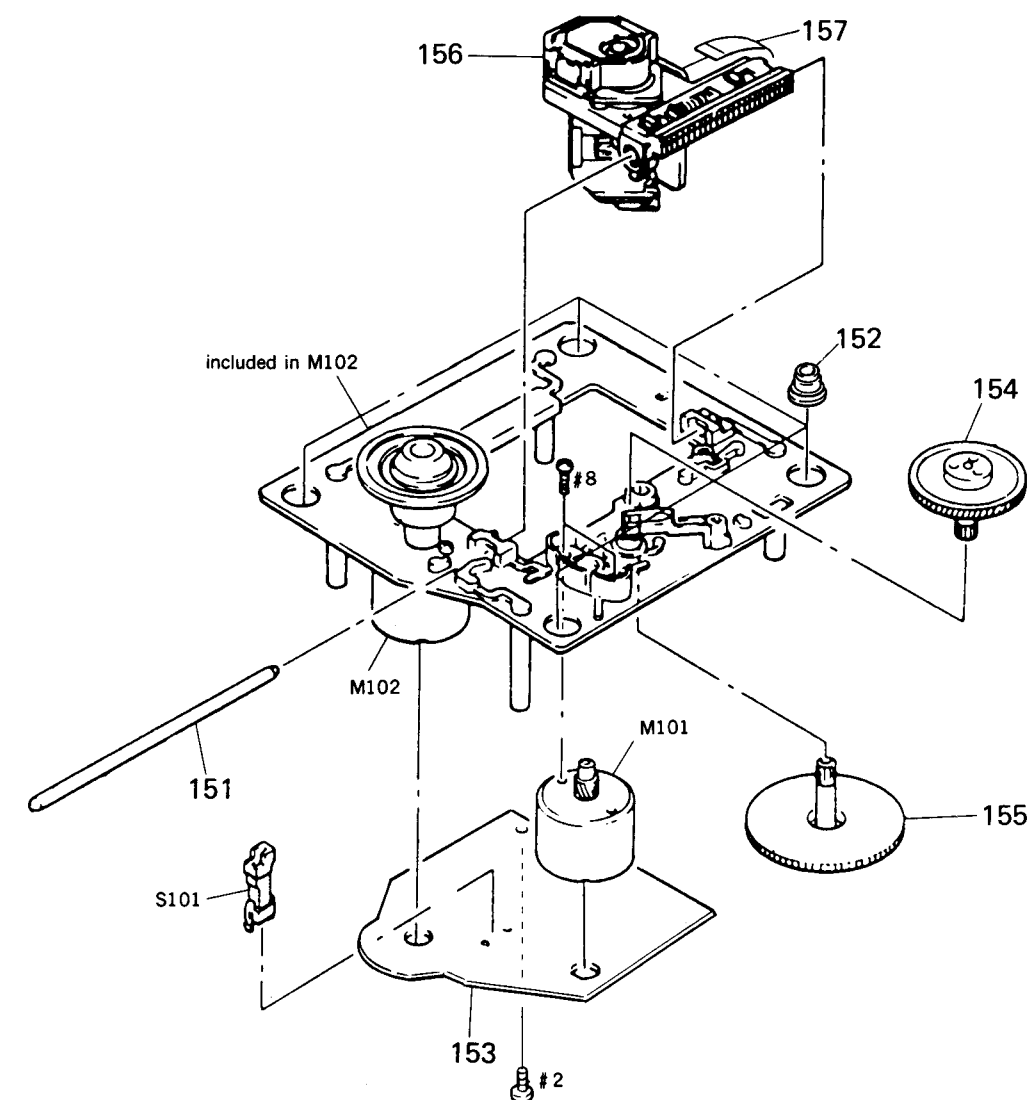
4-3. TRAY ASSEMBLY



Ref. No.	Part No.	Description	Remark
101	4-926-384-01	SCREW, STEP	
* 102	4-926-383-01	TABLE (B), DISK	
* 103	4-949-226-01	PLATE, LOCK	
* 104	4-930-506-02	BRACKET (PRESS PULLEY)	
105	4-926-395-01	SPRING, COMPRESSION	
* 106	1-452-538-11	MAGNET	
* 107	4-926-388-01	BRACKET (ADJUSTMENT)	
108	4-923-597-01	SCREW, STEP	

Ref. No.	Part No.	Description	Remark
109	4-926-399-01	BELT	
110	4-951-121-01	TABLE (A), DISK (C325M)	
* 110	4-951-121-11	TABLE (A), DISK (C422M)	
111	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
* 112	1-638-729-11	TABLE MOTOR BOARD	
D701	8-719-970-19	DIODE GP1A521	
M701	A-4604-585-A	MOTOR ASSY, ROTARY	

4-4. OPTICAL PICK-UP BLOCK (BU-5BD8)



Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
151	4-917-565-01	SHAFT, SLED	
152	4-951-940-01	INSULATOR (BU)	
* 153	A-4649-199-A	BD BOARD, COMPLETE	
154	4-917-567-01	GEAR (M)	
155	4-917-564-01	GEAR (P), FLATNESS	

Ref. No.	Part No.	Description	Remark
Δ 156	8-848-144-11	DEVICE, OPTICAL KSS-240A	
157	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M101	X-4917-504-1	MOTOR ASSY, SLED	
M102	X-4917-523-3	MOTOR ASSY, SPINDLE	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

CDP-C325M/C422M

DISPLAY

POWER SW

SW

HP

LOADING MOTOR

OPEN/UP SW

TABLE MOTOR

Ref.No.	Part No.	Description	Remark
< IC >			
IC601	8-741-100-48	IC SBX1610-59 (C325M)	
< FLUORESCENT INDICATOR >			
FL601	1-519-721-11	INDICATOR TUBE, FLUORESCENT	
< RESISTOR >			
R601	1-249-427-11	CARBON 6.8K 5% 1/4W	
R602	1-249-422-11	CARBON 2.7K 5% 1/4W	
R603	1-249-424-11	CARBON 3.9K 5% 1/4W	
R701	1-249-427-11	CARBON 6.8K 5% 1/4W	
R702	1-249-432-11	CARBON 18K 5% 1/4W	
R703	1-249-424-11	CARBON 3.9K 5% 1/4W	
R704	1-249-422-11	CARBON 2.7K 5% 1/4W	
R705	1-249-427-11	CARBON 6.8K 5% 1/4W	
R706	1-249-424-11	CARBON 3.9K 5% 1/4W	
R707	1-249-422-11	CARBON 2.7K 5% 1/4W	
R708	1-249-422-11	CARBON 2.7K 5% 1/4W	
R709	1-249-422-11	CARBON 2.7K 5% 1/4W	
R710	1-249-424-11	CARBON 3.9K 5% 1/4W	
R711	1-249-427-11	CARBON 6.8K 5% 1/4W	
R712	1-249-422-11	CARBON 2.7K 5% 1/4W	
R713	1-249-424-11	CARBON 3.9K 5% 1/4W	
R714	1-249-427-11	CARBON 6.8K 5% 1/4W	
R715	1-249-432-11	CARBON 18K 5% 1/4W	
R716	1-249-432-11	CARBON 18K 5% 1/4W	
< SWITCH >			
SW603	1-570-157-51	SWITCH, SLIDE (TIMER) (C325M)	
SW604	1-554-303-21	SWITCH, TACTILE (TIME)	
SW605	1-554-303-21	SWITCH, TACTILE (FADER)	
SW606	1-554-303-21	SWITCH, TACTILE (EDIT/TIME FADE)	
SW607	1-554-303-21	SWITCH, TACTILE (CHECK)	
SW608	1-554-303-21	SWITCH, TACTILE (CLEAR)	
SW701	1-572-714-11	SWITCH, PUSH (POWER)	
SW702	1-554-303-21	SWITCH, TACTILE (DISC 1)	
SW703	1-554-303-21	SWITCH, TACTILE (DISC 2)	
SW704	1-554-303-21	SWITCH, TACTILE (DISC 3)	
SW705	1-554-303-21	SWITCH, TACTILE (DISC 4)	
SW706	1-554-303-21	SWITCH, TACTILE (DISC 5)	
SW707	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
SW708	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
SW709	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
SW710	1-554-303-21	SWITCH, TACTILE (REPEAT)	
SW711	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)	
SW712	1-554-303-21	SWITCH, TACTILE (PEAK SEARCH)	
SW713	1-554-303-21	SWITCH, TACTILE (>)	
SW714	1-554-303-21	SWITCH, TACTILE (□)	

Ref.No.	Part No.	Description	Remark
SW715	1-554-303-21	SWITCH, TACTILE (■)	
SW716	1-554-303-21	SWITCH, TACTILE (◀◀)	
SW717	1-554-303-21	SWITCH, TACTILE (◀▶)	
SW718	1-554-303-21	SWITCH, TACTILE (▶▶)	
SW719	1-554-303-21	SWITCH, TACTILE (▶▶)	
SW720	1-554-303-21	SWITCH, TACTILE (DISC SKIP)	
SW721	1-554-303-21	SWITCH, TACTILE (△OPEN/CLOSE)	

*	1-643-532-11	HP BOARD (C325M)	

< CAPACITOR >			
C751	1-164-159-11	CERAMIC 0.1uF 50V	
C752	1-162-291-31	CERAMIC 560PF 10% 50V	
C753	1-162-291-31	CERAMIC 560PF 10% 50V	
< JACK >			
J751	1-691-878-11	JACK (LARGE TYPE) (HEADPHONES) (C325M)	
< VARIABLE RESISTOR >			
RV751	1-241-031-11	RES. VAR. CARBON 1K/1K (PHONE LEVEL) (C325M)	

*	1-638-730-11	LOADING MOTOR BOARD	

*	1-638-731-11	OPEN/UP SW BOARD	

*	1-638-729-11	TABLE MOTOR BOARD	

< CAPACITOR >			
C704	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C705	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
< CONNECTOR >			
* CN705	1-573-383-11	PIN, CONNECTOR (PC BOARD) 2P	
* CN707	1-573-044-11	SOCKET, CONNECTOR 5P	
< DIODE >			
D701	8-719-970-19	DIODE GPIA521	
< RESISTOR >			
R701	1-249-416-11	CARBON 820 5% 1/4W	

LOADING MOTOR

OPEN/UP SW

TABLE MOTOR

MAIN

Ref. No.	Part No.	Description	Remark		
< SWITCH >					
S702	1-571-300-21	SWITCH, ROTARY (OPEN/UP)			

*	A-4649-200-A	MAIN BOARD, COMPLETE (C422M:AEP, UK, AUS)			
*	A-4649-208-A	MAIN BOARD, COMPLETE (C422M:E)			
*	A-4649-209-A	MAIN BOARD, COMPLETE (C325M:AEP, UK, AUS)			
*	A-4649-213-A	MAIN BOARD, COMPLETE (C325M:E)			

	7-682-548-04	SCREW +BVTT 3X8 (S)			
< CAPACITOR >					
C201	1-124-572-11	ELECT	100uF	20%	63V
C202	1-126-059-11	ELECT	10uF	20%	50V
C203	1-124-360-00	ELECT	1000uF	20%	16V
C204	1-124-887-00	ELECT	3300uF	20%	16V
C205	1-126-163-11	ELECT	4.7uF	20%	50V
C206	1-126-163-11	ELECT	4.7uF	20%	50V
C207	1-124-910-11	ELECT	47uF	20%	50V
C209	1-124-997-11	ELECT	470uF	20%	10V
C210	1-126-024-11	ELECT	220uF	20%	16V
C221	1-161-494-00	CERAMIC	0.022uF		25V
C230	1-126-049-11	ELECT	22uF	20%	25V
C231	1-124-994-11	ELECT	100uF	20%	10V
C232	1-124-994-11	ELECT	100uF	20%	10V
C233	1-126-012-11	ELECT	470uF	20%	16V
C234	1-126-012-11	ELECT	470uF	20%	16V
C301	1-126-022-11	ELECT	47uF	20%	16V
C302	1-161-494-00	CERAMIC	0.022uF		25V
C303	1-161-494-00	CERAMIC	0.022uF		25V
C304	1-164-159-11	CERAMIC	0.1uF		50V
C311	1-130-491-00	MYLAR	0.047uF	5%	50V
C312	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C313	1-161-494-00	CERAMIC	0.022uF		25V
C314	1-162-306-11	CERAMIC	0.01uF	20%	16V
C315	1-126-300-11	ELECT	0.47uF	20%	50V
C316	1-161-494-00	CERAMIC	0.022uF		25V
C319	1-162-282-31	CERAMIC	100PF	10%	50V
C320	1-130-483-00	MYLAR	0.01uF	5%	50V
C322	1-164-159-11	CERAMIC	0.1uF		50V
C331	1-162-208-31	CERAMIC	24PF	5%	50V
C336	1-126-022-11	ELECT	47uF	20%	16V
C337	1-161-494-00	CERAMIC	0.022uF		25V
C342	1-126-022-11	ELECT	47uF	20%	16V
C343	1-161-494-00	CERAMIC	0.022uF		25V
C349	1-161-494-00	CERAMIC	0.022uF		25V
C350	1-126-022-11	ELECT	47uF	20%	16V
C351	1-161-494-00	CERAMIC	0.022uF		25V

Ref. No.	Part No.	Description	Remark		
C353	1-162-205-31	CERAMIC	18PF	5%	50V
C354	1-162-205-31	CERAMIC	18PF	5%	50V
C355	1-161-494-00	CERAMIC	0.022uF		25V
C356	1-126-022-11	ELECT	47uF	20%	16V
C357	1-124-997-11	ELECT	470uF	20%	10V
C358	1-161-494-00	CERAMIC	0.022uF		25V
C361	1-162-280-31	CERAMIC	82PF	10%	50V
C363	1-162-213-31	CERAMIC	39PF	5%	50V
C364	1-162-213-31	CERAMIC	39PF	5%	50V
C365	1-162-213-31	CERAMIC	39PF	5%	50V
C366	1-162-213-31	CERAMIC	39PF	5%	50V
C367	1-162-280-31	CERAMIC	82PF	10%	50V
C371	1-130-479-00	MYLAR	0.0047uF	5%	50V
C372	1-130-479-00	MYLAR	0.0047uF	5%	50V
C373	1-130-472-00	MYLAR	0.0012uF	5%	50V
C374	1-130-472-00	MYLAR	0.0012uF	5%	50V
C375	1-124-994-11	ELECT	100uF	20%	10V
C376	1-124-994-11	ELECT	100uF	20%	10V
C377	1-124-994-11	ELECT	100uF	20%	10V
C378	1-124-994-11	ELECT	100uF	20%	10V
C379	1-130-473-00	MYLAR	0.0015uF	5%	50V
C380	1-130-473-00	MYLAR	0.0015uF	5%	50V
C384	1-126-022-11	ELECT	47uF	20%	16V
C385	1-126-022-11	ELECT	47uF	20%	16V
C390	1-161-494-00	CERAMIC	0.022uF		25V
C391	1-124-997-11	ELECT	470uF	20%	10V
C392	1-164-159-11	CERAMIC	0.1uF		50V
C393	1-164-159-11	CERAMIC	0.1uF		50V
C394	1-164-159-11	CERAMIC	0.1uF		50V
C401	1-126-022-11	ELECT	47uF	20%	16V
C402	1-161-494-00	CERAMIC	0.022uF		25V
C403	1-126-023-11	ELECT	100uF	20%	16V
C404	1-126-023-11	ELECT	100uF	20%	16V
C408	1-164-159-11	CERAMIC	0.1uF		50V
C409	1-164-159-11	CERAMIC	0.1uF		50V
C414	1-161-494-00	CERAMIC	0.022uF		25V
C425	1-162-294-31	CERAMIC	0.001uF	10%	50V
C426	1-162-294-31	CERAMIC	0.001uF	10%	50V
C429	1-162-294-31	CERAMIC	0.001uF	10%	50V
C430	1-162-294-31	CERAMIC	0.001uF	10%	50V
C431	1-162-294-31	CERAMIC	0.001uF	10%	50V
C432	1-162-294-31	CERAMIC	0.001uF	10%	50V
C550	1-126-024-11	ELECT	220uF	20%	16V
		(C325M)			
C560	1-126-024-11	ELECT	220uF	20%	16V
		(C325M)			
< CONNECTOR >					
* CN201	1-573-047-11	PIN, CONNECTOR (PC BOARD) 2P			

MAIN

Ref. No.	Part No.	Description	Remark
* CN301	1-691-895-11	SOCKET, CONNECTOR (L TYPE) 18P	
* CN401	1-691-901-11	SOCKET, CONNECTOR (L TYPE) 33P	(C422M)
* CN401	1-691-902-11	SOCKET, CONNECTOR (L TYPE) 37P	(C325M)
* CN402	1-691-889-11	SOCKET, CONNECTOR (L TYPE) 11P	
* CN403	1-568-824-11	SOCKET, CONNECTOR 5P	
* CN404	1-568-943-11	PIN, CONNECTOR 5P	
* CN502	1-565-561-11	PIN, CONNECTOR 3P (AU BUS)	(C422M)

< DIODE >

D201	8-719-200-82	DIODE	11ES2
D202	8-719-110-08	DIODE	RD8.2ES-B2
D203	8-719-200-82	DIODE	11ES2
D204	8-719-200-82	DIODE	11ES2
D205	8-719-200-82	DIODE	11ES2
D206	8-719-200-82	DIODE	11ES2
D207	8-719-200-82	DIODE	11ES2
D208	8-719-200-82	DIODE	11ES2
D385	8-719-987-63	DIODE	1N4148M
D401	8-719-987-63	DIODE	1N4148M (C422M)

< IC >

IC201	8-759-633-42	IC	M5293L
IC202	8-759-061-65	IC	LA5602
IC204	8-759-604-86	IC	M5F7807L
IC301	8-752-337-26	IC	CXD2500AQ
IC302	8-752-342-65	IC	CXD2560M
IC303	8-752-351-19	IC	CXD25618M
IC306	8-759-061-66	IC	LA9215
IC401	8-752-837-03	IC	CXP50120-020Q (C422M)
IC401	8-752-837-01	IC	CXP50116-287Q (C325M)
IC402	8-759-821-32	IC	CXA1291P
IC501	8-759-634-51	IC	M5218AP (C325M)

< JACK >

J501	1-569-442-11	JACK, PIN 2P (LINE OUT)	
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< COIL >

L301	1-412-473-21	INDUCTOR	0uH
L302	1-412-473-21	INDUCTOR	0uH
L303	1-412-473-21	INDUCTOR	0uH
L305	1-412-473-21	INDUCTOR	0uH
L306	1-412-297-11	INDUCTOR	3.3uH
L309	1-412-473-21	INDUCTOR	0uH
L310	1-412-473-21	INDUCTOR	0uH
L311	1-412-473-21	INDUCTOR	0uH
L331	1-412-297-11	INDUCTOR	3.3uH

Ref. No.	Part No.	Description	Remark
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< TRANSISTOR >

Q201	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q302	8-729-900-80	TRANSISTOR	DTC114ES
Q303	8-729-900-89	TRANSISTOR	DTC144ES
Q304	8-729-900-61	TRANSISTOR	DTA114ES
Q305	8-729-900-61	TRANSISTOR	DTA114ES
Q401	8-729-900-89	TRANSISTOR	DTC144ES
Q403	8-729-900-80	TRANSISTOR	DTC114ES (C422M)

< RESISTOR >

R201	1-249-435-11	CARBON	33K	5%	1/4W
R202	1-249-438-11	CARBON	56K	5%	1/4W
R203	1-249-429-11	CARBON	10K	5%	1/4W
R301	1-249-417-11	CARBON	1K	5%	1/4W
R302	1-249-417-11	CARBON	1K	5%	1/4W
R303	1-249-417-11	CARBON	1K	5%	1/4W
R304	1-249-417-11	CARBON	1K	5%	1/4W
R306	1-249-413-11	CARBON	470	5%	1/4W
R309	1-249-405-11	CARBON	100	5%	1/4W
R311	1-249-423-11	CARBON	3.3K	5%	1/4W
R312	1-249-429-11	CARBON	10K	5%	1/4W
R313	1-249-423-11	CARBON	3.3K	5%	1/4W
R314	1-249-429-11	CARBON	10K	5%	1/4W
R315	1-249-417-11	CARBON	1K	5%	1/4W
R316	1-249-417-11	CARBON	1K	5%	1/4W
R317	1-249-419-11	CARBON	1.5K	5%	1/4W
R318	1-249-441-11	CARBON	100K	5%	1/4W
R319	1-247-903-00	CARBON	1M	5%	1/4W
R321	1-249-417-11	CARBON	1K	5%	1/4W
R322	1-249-417-11	CARBON	1K	5%	1/4W
R323	1-249-417-11	CARBON	1K	5%	1/4W
R324	1-249-417-11	CARBON	1K	5%	1/4W
R330	1-249-417-11	CARBON	1K	5%	1/4W
R331	1-249-417-11	CARBON	1K	5%	1/4W
R342	1-249-417-11	CARBON	1K	5%	1/4W
R351	1-249-436-11	CARBON	39K	5%	1/4W
R352	1-249-436-11	CARBON	39K	5%	1/4W
R353	1-249-436-11	CARBON	39K	5%	1/4W
R354	1-249-436-11	CARBON	39K	5%	1/4W
R355	1-249-436-11	CARBON	39K	5%	1/4W
R356	1-249-436-11	CARBON	39K	5%	1/4W
R357	1-249-436-11	CARBON	39K	5%	1/4W
R358	1-249-436-11	CARBON	39K	5%	1/4W
R359	1-247-903-00	CARBON	1M	5%	1/4W
R361	1-249-431-11	CARBON	15K	5%	1/4W
R362	1-249-431-11	CARBON	15K	5%	1/4W
R363	1-249-431-11	CARBON	15K	5%	1/4W
R364	1-249-431-11	CARBON	15K	5%	1/4W

MAIN

Ref. No.	Part No.	Description	Remark		
R365	1-249-438-11	CARBON	56K	5%	1/4W
R366	1-249-438-11	CARBON	56K	5%	1/4W
R367	1-249-438-11	CARBON	56K	5%	1/4W
R368	1-249-438-11	CARBON	56K	5%	1/4W
R369	1-249-419-11	CARBON	1.5K	5%	1/4W
R370	1-249-419-11	CARBON	1.5K	5%	1/4W
R371	1-249-419-11	CARBON	1.5K	5%	1/4W
R372	1-249-419-11	CARBON	1.5K	5%	1/4W
R373	1-249-429-11	CARBON	10K	5%	1/4W
R374	1-249-429-11	CARBON	10K	5%	1/4W
R375	1-249-429-11	CARBON	10K	5%	1/4W
R376	1-249-429-11	CARBON	10K	5%	1/4W
R383	1-249-417-11	CARBON	1K	5%	1/4W
R384	1-249-417-11	CARBON	1K	5%	1/4W
R385	1-249-422-11	CARBON	2.7K	5%	1/4W
R401	1-249-433-11	CARBON	22K	5%	1/4W
R402	1-249-433-11	CARBON	22K	5%	1/4W
R403	1-249-425-11	CARBON	4.7K	5%	1/4W
R404	1-249-425-11	CARBON	4.7K	5%	1/4W
R405	1-249-425-11	CARBON	4.7K	5%	1/4W
R406	1-249-425-11	CARBON	4.7K	5%	1/4W
R408	1-249-441-11	CARBON	100K	5%	1/4W
R409	1-247-864-11	CARBON	24K	5%	1/4W
R410	1-247-880-11	CARBON	110K	5%	1/4W
R411	1-249-440-11	CARBON	82K	5%	1/4W
R412	1-247-876-11	CARBON	75K	5%	1/4W
R413	1-249-440-11	CARBON	82K	5%	1/4W
R414	1-247-874-11	CARBON	62K	5%	1/4W
R415	1-249-435-11	CARBON	33K	5%	1/4W
R416	1-247-878-00	CARBON	91K	5%	1/4W
R421	1-249-393-11	CARBON	10	5%	1/4W
R422	1-249-393-11	CARBON	10	5%	1/4W
R425	1-249-429-11	CARBON	10K	5%	1/4W
R426	1-249-429-11	CARBON	10K	5%	1/4W
R427	1-249-429-11	CARBON	10K	5%	1/4W
R428	1-249-429-11	CARBON	10K	5%	1/4W
R429	1-249-429-11	CARBON	10K	5%	1/4W
R430	1-249-429-11	CARBON	10K	5%	1/4W
R431	1-249-429-11	CARBON	10K	5%	1/4W
R432	1-249-429-11	CARBON	10K	5%	1/4W
R440	1-249-417-11	CARBON	1K	5%	1/4W (C422M)
R441	1-249-417-11	CARBON	1K	5%	1/4W (C422M)
R442	1-249-429-11	CARBON	10K	5%	1/4W (C422M)
R501	1-249-393-11	CARBON	10	5%	1/4W (C422M)
R553	1-249-402-11	CARBON	56	5%	1/4W (C325M)
R563	1-249-402-11	CARBON	56	5%	1/4W (C325M)

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
△S201	1-571-722-11	SWITCH, VOLTAGE SELECTION (VOLTAGE SELECTOR) (E)	
		< CRYSTAL >	
X351	1-579-314-11	VIBRATOR, CRYSTAL (22.5MHz)	

		MISCELLANEOUS	

9	1-690-847-11	WIRE (FLAT TYPE) (37 CORE) (C325M)	
9	1-690-848-11	WIRE (FLAT TYPE) (33 CORE) (C422M)	
10	1-690-849-11	WIRE (FLAT TYPE) (11 CORE)	
64	1-694-003-11	JAMPER, FILM (WITH TARMINAL)	
△76	1-575-651-21	CORD, POWER (AEP)	
△77	1-575-653-21	CORD, POWER (E)	
△78	1-574-358-11	CORD, POWER (WITH CONNECTOR) (C422M:AUS)	
△78	1-574-358-31	CORD, POWER (WITH CONNECTOR) (C325M:AUS)	
△79	1-558-946-21	CORD, POWER (C325M:UK)	
△79	1-590-379-11	CORD, POWER (C422M:UK)	
△80	1-569-007-11	ADAPTER, CONVERSION 2P (C325M:E)	
* 106	1-452-538-11	MAGNET	
111	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
△156	8-848-144-11	DEVICE, OPTICAL KSS-240A	
157	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M101	X-4917-504-1	MOTOR ASSY, SLED	
M102	X-4917-523-3	MOTOR ASSY, SPINDLE	
M701	A-4604-585-A	MOTOR ASSY, ROTARY	
M702	A-4604-834-A	MOTOR ASSY, LOADING	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR) (DOWN)	
△T901	1-449-955-11	TRANSFORMER, POWER (EXCEPT E)	
△T901	1-449-956-11	TRANSFORMER, POWER (E)	

Note: The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
ACCESSORIES & PACKING MATERIALS			

	1-558-271-11	CORD, CONNECTION (C325M:AEP)	
	1-558-271-11	CORD, CONNECTION (C422M:AEP)	
	1-693-053-11	REMOTE COMMANDER (RM-D325) (C325M)	
	2-181-754-01	COVER, BATTERY (C325M)	
	3-754-847-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE)	
	3-754-847-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP)	
*	4-944-040-01	CUSHION (FRONT)	
*	4-944-041-01	CUSHION (REAR)	
*	4-951-269-11	INDIVIDUAL CARTON (C325M)	
*	4-951-269-21	INDIVIDUAL CARTON (C422M:AEP, AUS)	

HARDWARE LIST

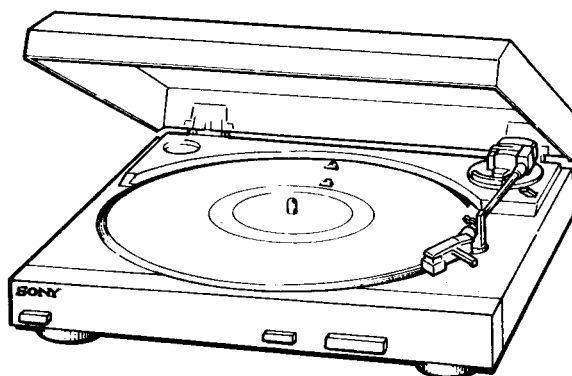
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S
#3	7-682-661-09	SCREW +PSW 4X8
#4	7-685-136-19	SCREW +P 2.6X12 TYPE2 NON-SLIT
#5	7-685-647-79	SCREW, TAPPING
#6	7-682-548-04	SCREW +BVTT 3X8 (S)
#7	7-682-554-04	SCREW +B 3X25
#8	7-621-255-15	SCREW +P 2X3

PS-D707/D707P

SERVICE MANUAL

*AEP Model
E Model
Tourist Model*
PS-D707

UK Model
PS-D707P



PS-D707P is the STEREO
TURNTABLE SYSTEM
in LBT-D607CD/707CD

Photo: PS-D707

SPECIFICATIONS

Turntable	
Platter	30cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 1/3 rpm/45 rpm switchable
Wow and flutter	0.15% (WRMS)
Signal-to-noise ratio	65 dB (DIN-B)
Automatic system	Return, reject, lead in
Tonearm	
Type	Dynamically balanced
Pivot-to-stylus length	206 mm (7 7/8 in.)
Overall arm length	235 mm (9 3/8 in.)
Cartridge	
Type	Moving magnet type
Frequency response	20 Hz-20kHz
Stylus	ND-155G
General	
Dimensions	355 × 93.5 × 355 mm(w/h/d) (14 × 3 3/4 × 14 inches)
Weight	Approx. 2.6 kg (4 lb 14 oz)
Power requirements	D707: AEP, Germany, Italian models 220 V AC, 50/60 Hz D707: Australia model 240 V AC, 50 Hz D707: E, Saudi Arabia models 110-120 V, 220-240 V adjustable, 50/60 Hz
Power consumption	4 W
Accessory supplied	45-rpm adaptor (1)
Optional accessory	Replacement stylus ND-155G

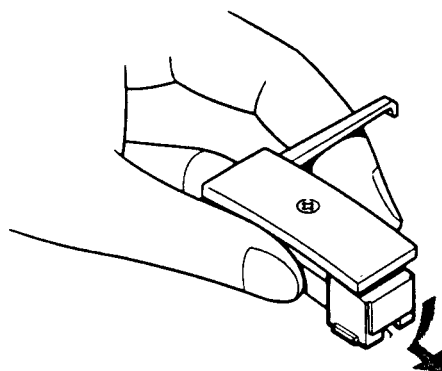
Note for Cartridge

Be careful not to use any cartridge except for specified one (Part No.: 4-944-756-01) as balance weight of pick up arm assy is fixed.

REPLACING THE STYLUS

Replace the stylus after about 400 hours of use because using a worn stylus will damage records.
An ND-155G replacement stylus is available at your Sony dealer.
Be sure to turn the amplifier off before proceeding with replacement.

- 1 While holding the cartridge, detach the stylus assembly as illustrated.
- 2 Insert the new stylus into the cartridge.



Design and specifications subject to change without notice.

Note

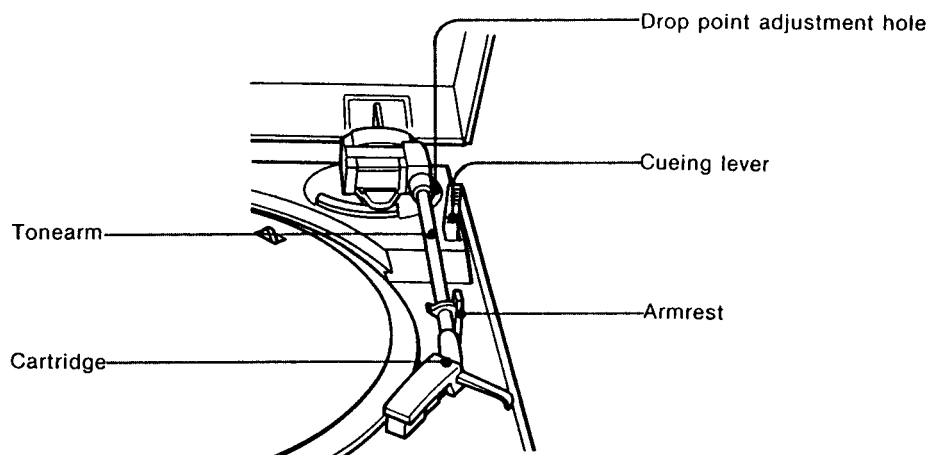
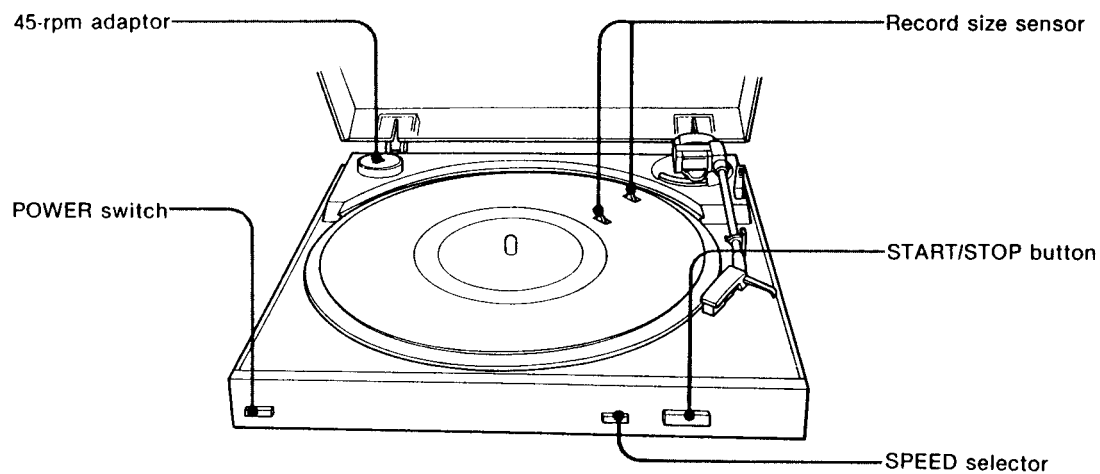
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.



STEREO TURNTABLE SYSTEM
SONY®

SECTION 1 GENERAL

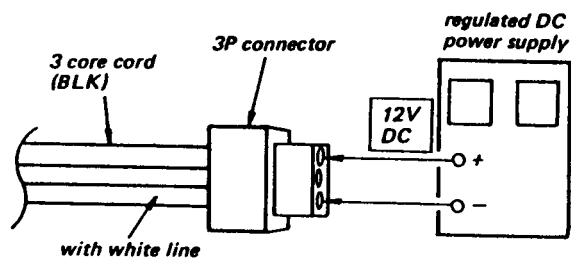
1-1. LOCATION OF CONTROLS



REPAIRING PRECAUTION (PS-D707P only)

[To supply B+ voltage]

The power of this unit is fed from LBT-D607CD or LBT-D707CD. Because of this, connect the regulated power supply as illustrated right when this unit alone operates.



1-2. TONEARM DROP-POINT ADJUSTMENT

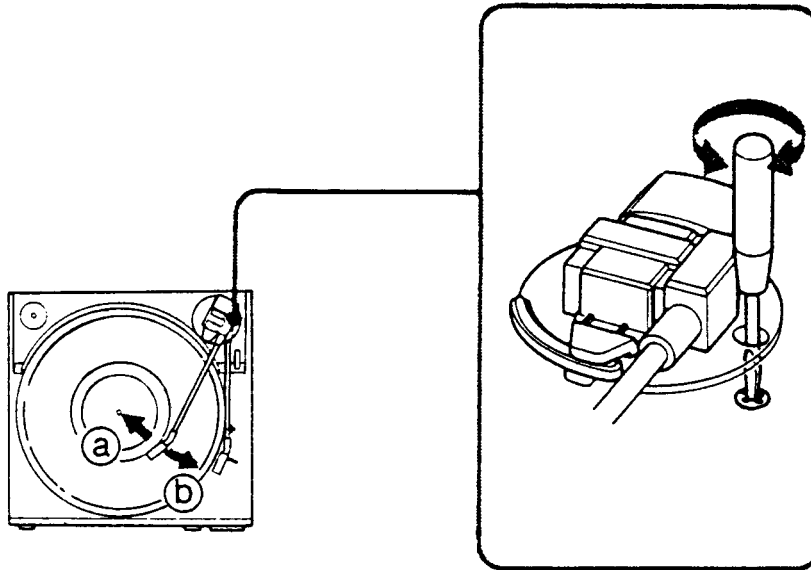
The tonearm drop-point during auto play has been factory-adjusted. If necessary, readjust it as follows.

To readjust the drop-point inward (a), turn the screw clockwise with a screwdriver.

To readjust the drop-point outward (b), turn the screw counterclockwise.

If the tonearm does not return to the arm rest automatically after play

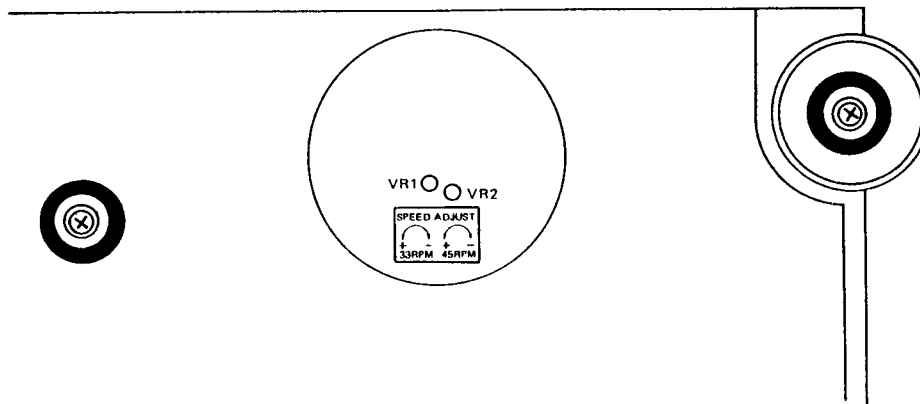
Turn the adjustment screw counterclockwise.



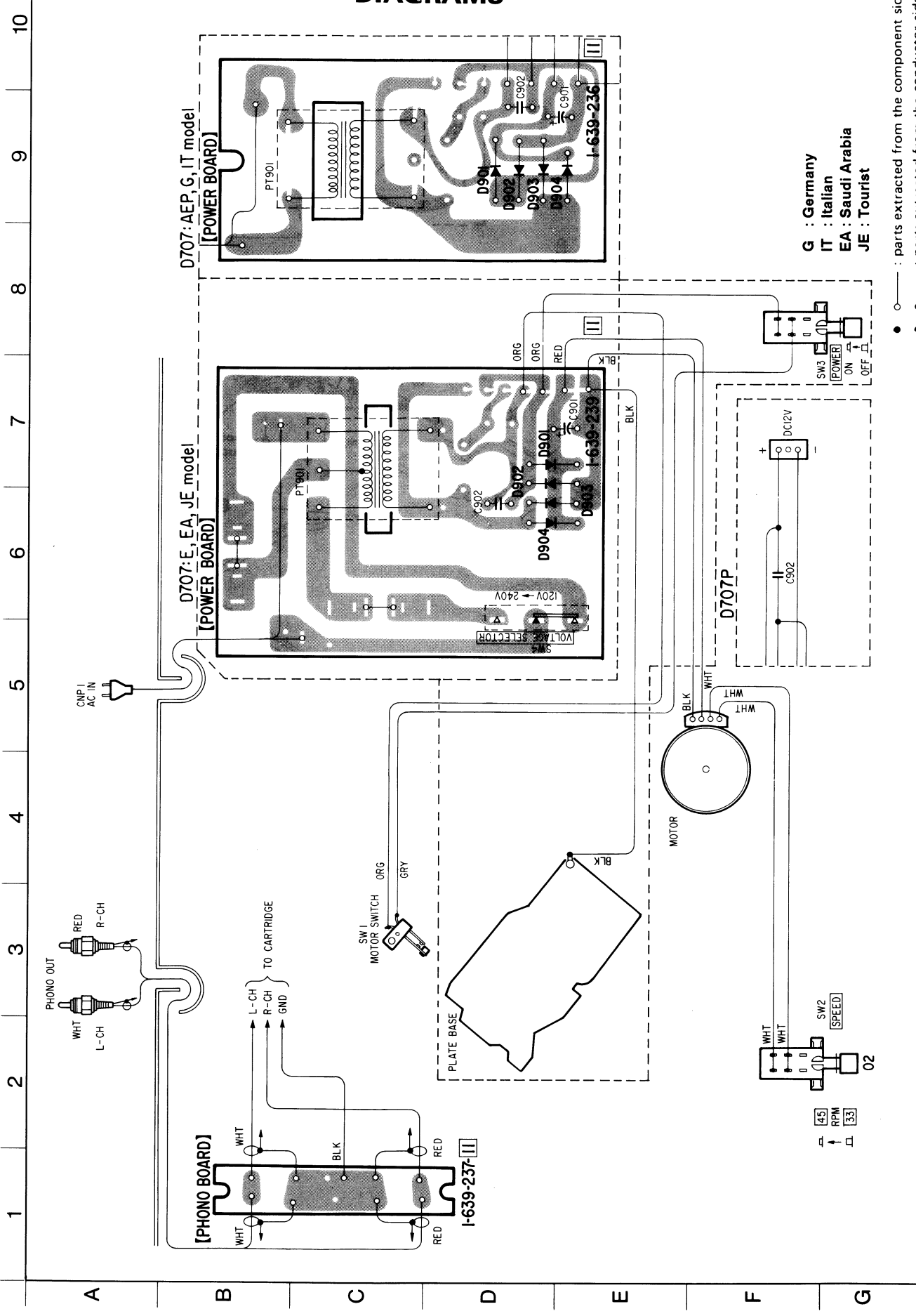
1-3. Speed Adjustment

Note: Be sure to perform 45rpm adjustment before 33 rpm.

1. Place a stroboscope board on the turntable sheet.
2. Set the SPEED switch to 45.
Press the START button.
Adjust VR2 so that the striped pattern of stroboscope board is stationary.
3. Set the SPEED switch to 33.
Adjust VR1 in the same way.



2-1. PRINTED WIRING BOARDS

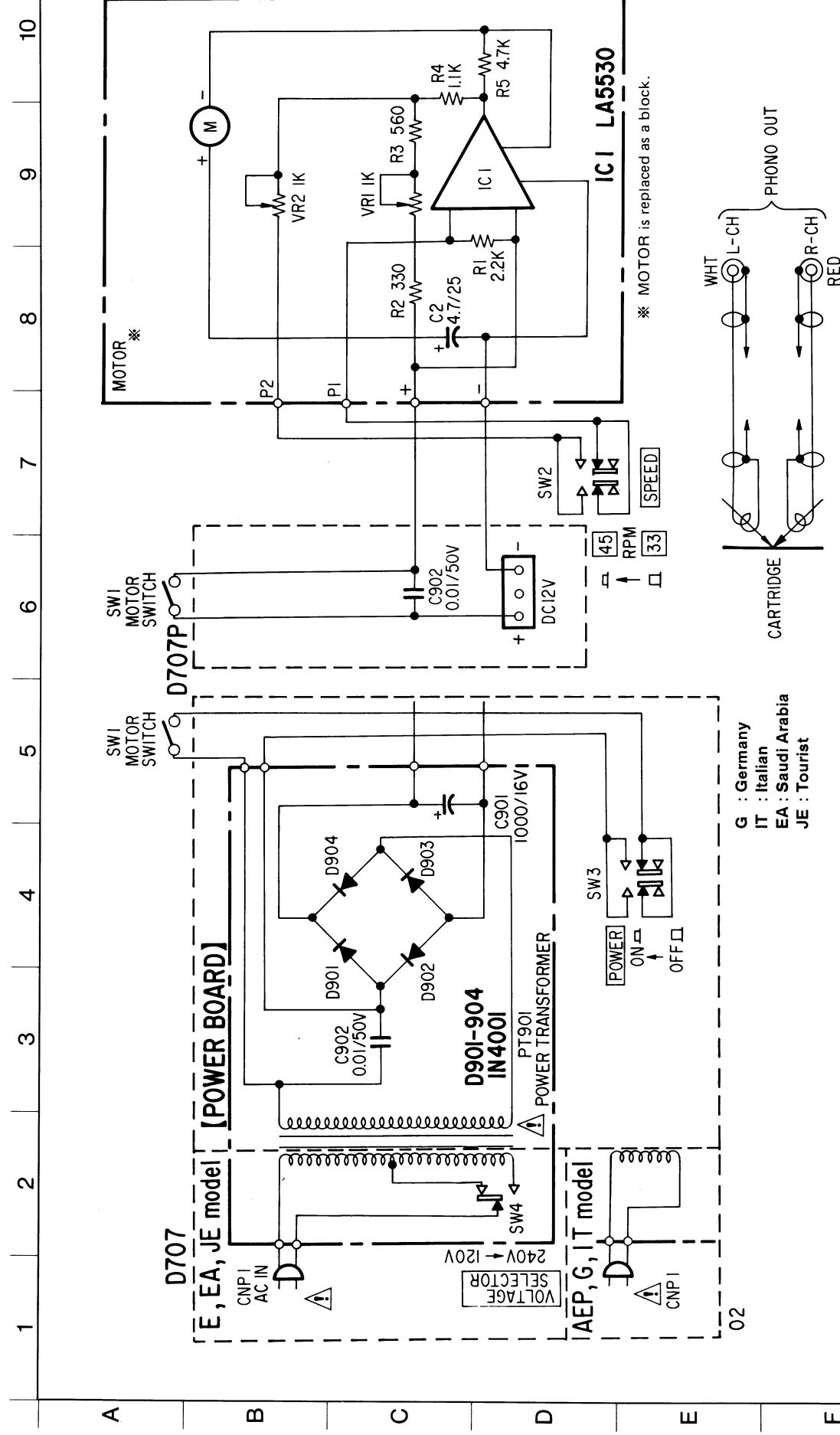


SECTION 2 DIAGRAMS

G : Germany
IT : Italian
EA : Saudi Arabia
JE : Tourist

• — : parts extracted from the component side.
• — : parts extracted from the conductor side.

2-2. SCHEMATIC DIAGRAM



Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

SECTION 3 EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE)....(RED)

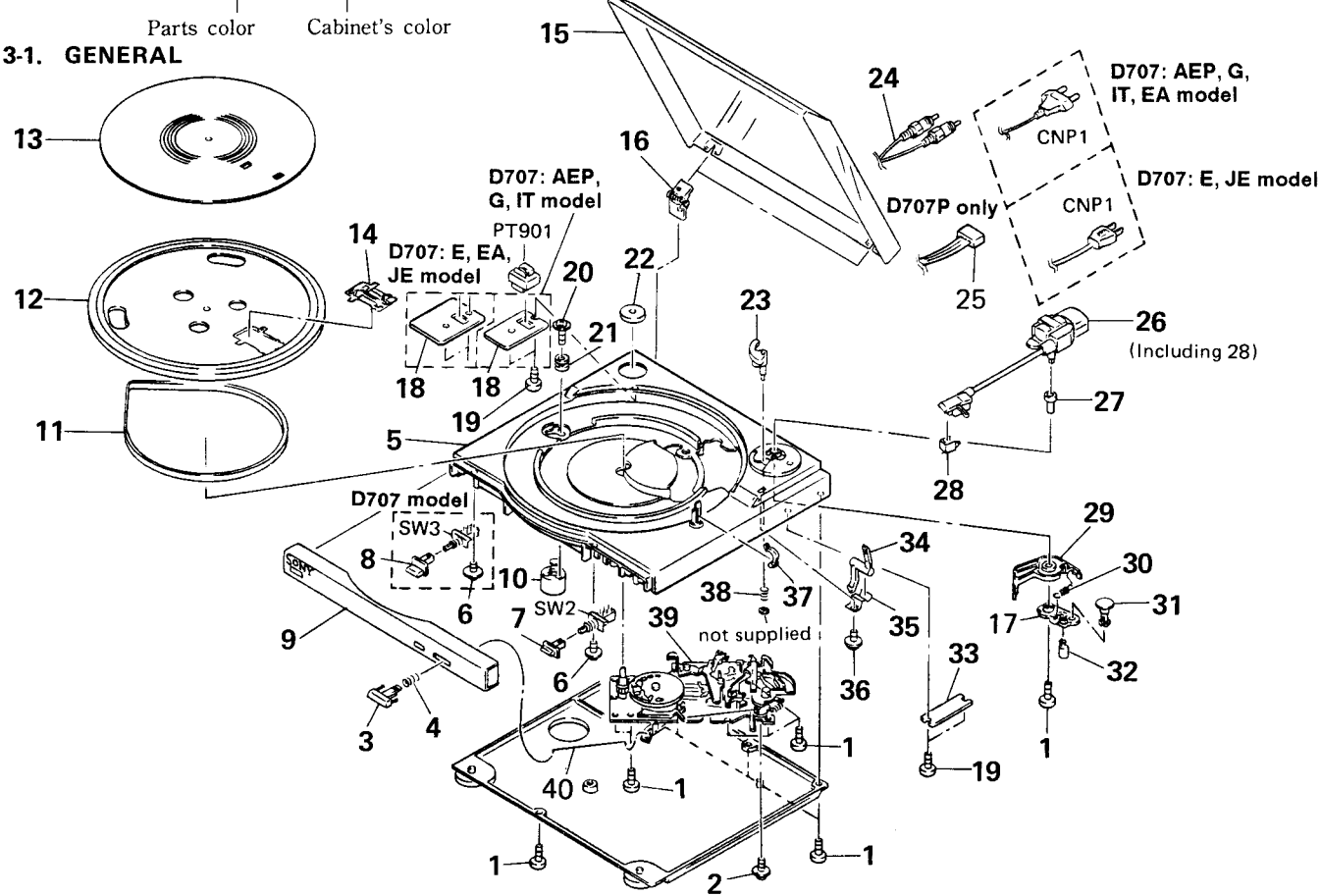
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

G : Germany EA : Saudi Arabia
IT : Italian JE : Tourist

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

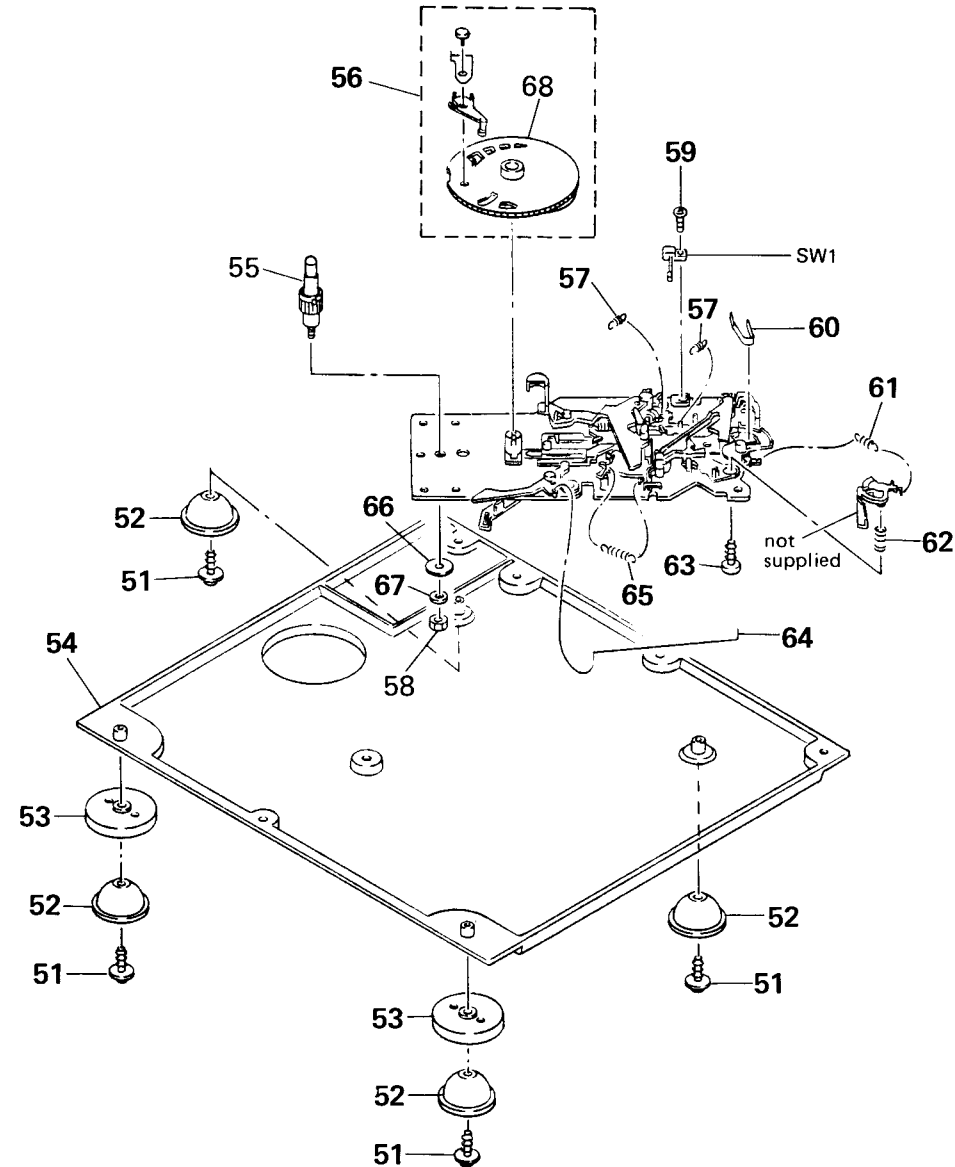
3-1. GENERAL



Ref.No.	Part No.	Description	Remark
1	4-946-233-01	SCREW #2WPT 3X12Y	
2	4-946-234-01	SCREW #2WPT 3X10X12Y	
3	4-944-680-01	BUTTON, START STOP(BLACK) (D707:EA3, JE, IT)	
3	4-944-680-11	BUTTON, START STOP(GRAY) (D707:AEP, G, EA3, JE, E/D707P)	
4	4-944-686-01	SPRING, RETURN	
* 5	4-944-678-01	CABINET, UPPER	
6	8-099-230-08	SCREW 3X8	
7	4-944-683-01	BUTTON, SPEED(BLACK) (D707:EA3, JE, IT, E)	
7	4-944-683-11	BUTTON, SPEED(GRAY) (D707:AEP, G, EA3, JE/D707P)	
8	4-944-681-01	BUTTON, POWER(BLACK) (D707:EA3, JE, IT)	
8	4-944-681-11	BUTTON, POWER(GRAY) (D707:AEP, G, EA3, JE, E)	
9	A-4660-102-A	PANEL (G) ASSY, FRONT(GRAY) (D707:AEP, G, EA3, JE, E)	
9	A-4660-103-A	PANEL (P-G) ASSY, FRONT(D707P)	
9	A-4660-104-A	PANEL (B) ASSY, FRONT(BLACK) (D707:EA3, JE, IT)	
10	1-541-872-11	MOTOR, DC (WITH PULLEY)	
11	4-944-743-01	BELT	
12	4-944-744-01	PLATER	
13	4-950-309-01	SHEET, RUBBER	
14	A-4325-130-A	SENSOR ASSY	
15	A-4604-844-A	COVER ASSY, DUST	
16	4-944-691-01	HINGE	
17	4-944-703-01	ARM (A), FEED	
* 18	1-639-239-11	POWER BOARD(D707:EA3, JE, E)	
* 18	1-639-236-11	POWER BOARD(D707:AEP, G, IT)	

Ref.No.	Part No.	Description	Remark
19	4-944-729-01	SCREW	
20	4-944-694-01	SCREW, SETTING MOTOR	
21	4-944-692-01	CUSHION, MOTOR	
22	3-701-806-00	ADAPTOR, EP	
23	4-944-675-01	ARM, ELEVATION	
24	1-551-294-00	CORD (PHONO)	
25	1-590-871-11	CORD (WITH CONNECTOR) 3P(D707P)	
26	A-4604-840-A	ARM ASSY, TONE	
* 27	4-944-672-01	BUSHING, TONE ARM	
28	4-944-756-01	CARTRIDGE	
29	4-944-704-01	ARM (B), FEED	
30	4-944-705-01	SPRING, FEED ARM	
31	4-944-759-01	ADJUSTMENT, CAM LEAD IN	
32	4-944-760-01	ADJUSTMENT, CAM LEAD AUTORETURN	
* 33	1-639-237-11	PC BOARD, PHONO	
34	4-944-674-01	LEVER, CUING	
* 35	4-944-685-01	BRACKET, CUING	
36	4-944-695-01	SCREW	
37	4-944-673-01	LOCKER, ARM	
38	4-944-687-01	SPRING, ELEVATION	
* 39	A-4604-842-A	MECHANICAL ASSY, BASE	
40	4-944-688-01	LINK, START CUT	
Δ CNP1	1-555-750-00	CORD, POWER(D707:AEP, G, EA3, IT)	
Δ CNP1	1-551-188-XX	CORD, POWER(D707:JE, E)	
Δ PT901	1-450-508-11	TRANSFORMER, POWER(D707)	
SW2	1-572-744-11	SWITCH, PUSH(SPEED)	
SW3	1-572-744-11	SWITCH, PUSH(POWER) (D707)	

3-2. MD SECTION



Ref.No.	Part No.	Description	Remark
51	4-946-234-01	SCREW #2WPT 3X10X12Y	
52	4-944-693-01	RUBBER, FOOT	
53	4-944-679-01	COVER, FOOT	
* 54	4-944-684-01	COVER, BOTTOM	
55	A-4604-892-A	SHAFT ASSY, CENTER	
56	A-4325-128-A	GEAR ASSY, RING	
* 57	4-944-725-01	SPRING, SWITCH	
58	4-944-730-01	NUT	
59	4-944-728-01	SCREW	
* 60	4-944-726-01	BRACKET, LOCKER	

Ref.No.	Part No.	Description	Remark
61	4-944-723-01	SPRING, CONTROL	
62	4-944-722-01	SPRING, CUING CAM	
63	4-946-233-01	SCREW #2WPT 3X12Y	
64	4-944-727-01	LINK, REJECT	
65	4-944-724-01	SPRING, MECHANICAL	
66	4-944-731-01	WASHER, RAIN	
67	4-944-732-01	WASHER, SPRING	
68	4-944-738-01	GEAR, RING	
SW1	1-572-746-11	SWITCH, LEAF	

NOTE:

- Due to stan the parts lis parts specif components
- -XX, -X n they may l the original
- RESISTOR All resistor METAL:M METAL OX F: nonflam

Ref. No.	Pa
---	---
*	1-
*	1-

C901	1-
C902	1-

Δ CNP1	1-
Δ CNP1	1-

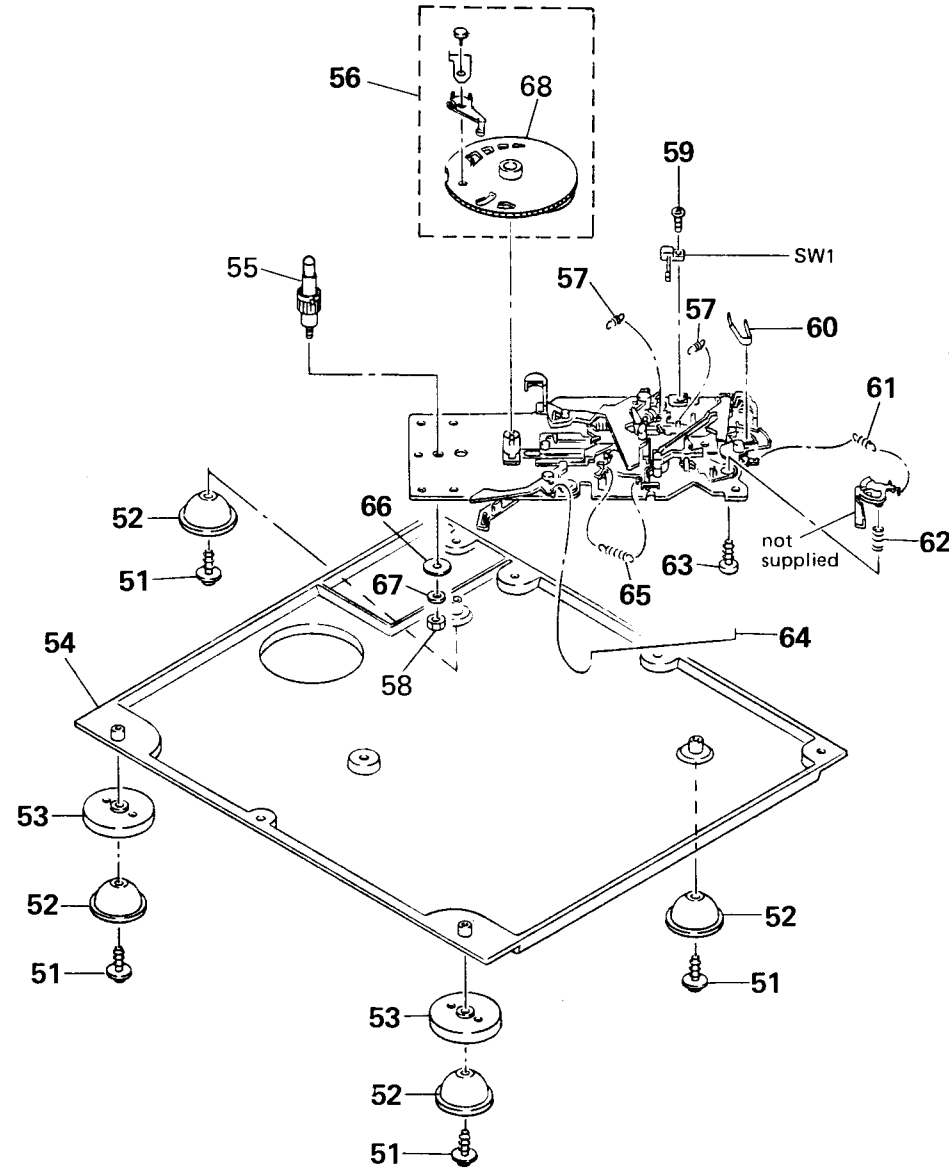
D901	8-
D902	8-
D903	8-
D904	8-

Δ PT901	1-
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SW4	1-
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POWER

3-2. MD SECTION



Ref.No.	Part No.	Description	Remark
51	4-946-234-01	SCREW #2WPT 3X10X12Y	
52	4-944-693-01	RUBBER, FOOT	
53	4-944-679-01	COVER, FOOT	
* 54	4-944-684-01	COVER, BOTTOM	
55	A-4604-892-A	SHAFT ASSY, CENTER	
56	A-4325-128-A	GEAR ASSY, RING	
* 57	4-944-725-01	SPRING, SWITCH	
58	4-944-730-01	NUT	
59	4-944-728-01	SCREW	
* 60	4-944-726-01	BRACKET, LOCKER	

Ref.No.	Part No.	Description	Remark
61	4-944-723-01	SPRING, CONTROL	
62	4-944-722-01	SPRING, CUING CAM	
63	4-946-233-01	SCREW #2WPT 3X12Y	
64	4-944-727-01	LINK, REJECT	
65	4-944-724-01	SPRING, MECHANICAL	
66	4-944-731-01	WASHER, RAIN	
67	4-944-732-01	WASHER, SPRING	
68	4-944-738-01	GEAR, RING	
SW1	1-572-746-11	SWITCH, LEAF	

SECTION 4
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal oxide-film resistor
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA: μ A, uPA: μ PA, uPB: μ PB, uPC: μ PC, uPD: μ PD
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

G : Germany
IT : Italian
EA : Saudi Arabia
JE : Tourist

Ref.No.	Part No.	Description	Remark
*	1-639-236-11	POWER BOARD(D707:AEP, G, IT)	
*	1-639-239-11	POWER BOARD(D707:EA3, JE, E)	

< CAPACITOR >			
C901	1-124-360-00	ELECT 1000uF 20% 16V (D707)	
C902	1-136-153-00	FILM 0.01uF 50V	
< CONNECTOR >			
Δ CNP1	1-555-750-00	CORD, POWER(D707:AEP, G, EA3, IT)	
Δ CNP1	1-551-188-XX	CORD, POWER(D707:JE, E)	
< DIODE >			
D901	8-719-200-02	DIODE 10E2(D707)	
D902	8-719-200-02	DIODE 10E2(D707)	
D903	8-719-200-02	DIODE 10E2(D707)	
D904	8-719-200-02	DIODE 10E2(D707)	
< TRANSFORMER >			
Δ PT901	1-450-508-11	TRANSFORMER, POWER(D707)	
< SWITCH >			
SW4	1-572-745-11	SELECTOR, VOLTAGE(D707:EA3, JE, E)	

Ref.No.	Part No.	Description	Remark
MISCELLANEOUS			

10	1-541-872-11	MOTOR, DC (WITH PULLEY)	
24	1-551-294-00	CORD (PHONO)	
25	1-590-871-11	CORD (WITH CONNECTOR) 3P(D707P)	
* 33	1-639-237-11	PC BOARD, PHONO	
Δ CNP1	1-555-750-00	CORD, POWER(D707:AEP, G, EA3, IT)	
Δ CNP1	1-551-188-XX	CORD, POWER(D707:JE, E)	
SW1	1-572-746-11	SWITCH, LEAF	
SW2	1-572-744-11	SWITCH, PUSH(SPEED)	
SW3	1-572-744-11	SWITCH, PUSH(POWER) (D707)	

ACCESSORIES & PACKING MATERIALS			

	3-754-642-11	MANUAL, INSTRUCTION(D707:AEP, EA3, JE, E) (ENGLISH, FRENCH, SPANISH, PORTUGUESE)	
	3-754-642-41	MANUAL, INSTRUCTION(D707:AEP, G, IT) (GERMAN, DUTCH, SWEDISH, ITALIAN)	
*	4-944-749-01	CUSHION (FRONT)	
*	4-944-750-01	CUSHION (REAR)	
*	4-950-061-01	INDIVIDUAL CARTON(D707:AEP, G, EA3, JE, E)	
*	4-950-063-01	INDIVIDUAL CARTON(D707:EA3, JE, IT)	
*	4-950-064-01	INDIVIDUAL CARTON(D707P)	